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IN THE

Supreme Court of the United States

OCTOBER TERM, 1982

PUERTO RICO MARITIME SHIPPING AUTHORITY,
Petitioner,

v.

FEDERAL MARITIME COMMISSION,
Respondent.

APPENDIX TO PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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APPENDIX A

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-2088

PUERTO RICO MARITIME SHIPPING AUTHORITY,
Petitioner

v.

FEDERAL MARITIME COMMISSION and
UNITED STATES OF AMERICA,
Respondents

TRAILER MARINE TRANSPORT CORPORATION,
GOVERNMENT OF THE UNITED STATES
VIRGIN ISLANDS, ET AL.,
DRUG AND TOILET PREPARATION
TRAFFIC CONFERENCE, INC.,
Intervenors

No. 81-2128

GOVERNMENT OF THE VIRGIN ISLANDS and
PUERTO RICO MANUFACTURERS ASSOCIATION,
Petitioners

v.

FEDERAL MARITIME COMMISSION and
UNITED STATES OF AMERICA,
Respondents

SEA-LAND SERVICE, INC.,
PUERTO RICO MARITIME SHIPPING AUTHORITY,
TRAILER MARINE TRANSPORT CORPORATION,
Intervenors

Petitions for Review of an Order of the
Federal Maritime Commission

Argued January 28, 1982

Decided May 14, 1982

Amy Loeserman Klein, with whom *Kathleen Mahon* was on the brief, for Puerto Rico Maritime Shipping Authority, petitioner in No. 81-2088 and intervenor in No. 81-2128.

John C. Cunningham, Attorney, Federal Maritime Commission, with whom *C. Jonathan Benner*, General Counsel, Federal Maritime Commission, was on the brief, for respondents. *Edward G. Gruis*, Attorney, Federal Maritime Commission, also entered an appearance for respondent, Federal Maritime Commission. *Barry Grossman* and *Robert J. Wiggers*, Attorneys, Department of Justice, also entered appearances for respondent, United States of America.

George J. Weiner, with whom *Edward J. Sheppard* and *Edward Aptaker* were on the brief, for Government of the Virgin Islands and Puerto Rico Manufacturers Association, intervenors in No. 81-2088 and cross-petitioners in No. 81-2128.

Michael Joseph for intervenor, Trailer Marine Transport Corporation, in Nos. 81-2088 and 81-2128.

Daniel J. Sweeney and *Steven J. Kalish* were on the brief for intervenor, Drug and Toilet Preparation Traffic Conference, Inc.

Donald J. Brunner was on the brief for intervenor, Sea-Land Service, Inc., in No. 81-2128.

Before: WALD, MIKVA and GINSBURG, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* WALD.

WALD, *Circuit Judge*: In September 1981 general rate increases were filed with the Federal Maritime Commission (FMC) by four common carriers in the Puerto Rico and Virgin Islands domestic offshore trade. Operating for the first time under new, expeditious procedures enacted by Congress in 1978, the Commission approved the rate increases of three of the carriers and reduced the proposed increase of the fourth and most dominant carrier, the Puerto Rico Maritime Shipping Authority. We now consider petitions for review of the agency's order filed by the dominant carrier and by representatives of involved shippers, challenging various elements of the Commission's decision. We affirm the Commission's order in all respects.

I. BACKGROUND

Under the Intercoastal Shipping Act of 1933, 46 U.S.C. §§ 843-848, the FMC was authorized to review the rates of intercoastal carriers in order to ensure that they were reasonable and just. In 1978, Congress amended the Act to streamline consideration of rate increases, while still protecting the interests of both carriers and shippers.[1] Under section 845 of title 46, as amended, the Federal Maritime Commission may set hearings to consider the lawfulness of any proposed rate increases, but only upon publication in the *Federal Register* of the specific issues to be resolved. 46 U.S.C. § 845(a) (Supp. III 1979). The Commission must adhere to strict time limits within which to complete its hearing and render a decision: the hearing must be completed within sixty days; an initial decision must be rendered within 120 days and the Commission must render a final decision within 180 days after the new rate is scheduled to go into effect. The Commission may once extend the 180-day limit for sixty days.

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[1] *See* Pub. L. No. 95-474, 92 Stat. 1496 (1978); S. REP. No. 1240, 95th Cong., 2d Sess. 1 (1978), *reprinted in* 1978 U.S. CODE CONG. & AD. NEWS 3331.

The 1978 Amendments also provided for special procedures for the conduct of the hearing: "Notwithstanding any other provision of law, in providing a hearing for the purposes of this chapter, it shall be adequate to provide an opportunity for the submission of all evidence in written form, followed by an opportunity for briefs, written statements, or conferences of the parties." *Id.* § 845(b). It is clear from the legislative history of the amendments that this provision was designed to allow expeditious completion of these hearings without running afoul of the Administrative Procedure Act.[2]

The carrier has the burden of proof that its rates are just and reasonable. *Id.* § 845(b). If the Commission finds that the new rates are unjust or unreasonable it may determine and prescribe a maximum or minimum rate. *See id.* § 845a. Any amount charged to shippers over that which is ultimately determined to be just and reasonable must be refunded to the shipper by the carrier, with interest computed on the basis of the prime lending rate. *See id.* § 845(c)(2).

This case presents for review the premier use by the Commission of these new powers and procedures to evaluate tradewide, general rate increases. The Com-

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[2] The legislation . . . specifies that for the purposes of the act and the Administrative Procedures Act it is unnecessary to hold a full evidentiary hearing with the opportunity to present oral testimony and cross-examine witnesses. It provides instead that it is sufficient to provide an opportunity to submit written statements, file briefs, or hold conferences. Moreover, it is expected that steps will be taken to expedite discovery. It had been suggested that the 180-day deadline could not be met because of the requirements imposed by the Administrative Procedures Act. These features are designed to remove that objection. However, constitutional due process may require an opportunity for a short oral presentation and opportunity for cross-examination. That, of course, could still be provided where appropriate.

H.R. REP. No. 474, 95th Cong., 1st Sess. 10 (1977).

mission evaluated rate increases filed by the four major carriers in the Atlantic Gulf Coast trade. Chief among these carriers is Puerto Rico Maritime Shipping Authority (PRMSA), a nonstock corporation owned by the Commonwealth of Puerto Rico.[3] The primary offshore areas served in this trade are Puerto Rico and the Virgin Islands.

On December 5, 1980, PRMSA filed general rate increases in the Puerto Rico and Virgin Islands trades averaging 17.2 percent, scheduled to become effective February 3, 1981. PRMSA's competitors Sea-Land Service, Inc. (Sea-Land), Trailer Marine Transport Corporation (TMT), and Gulf Caribbean Marine Lines (GCML) had filed similar general rate increases to become effective in January 1981. The increases filed by all of the carriers were protested by the Drug and Toilet Preparation Traffic Conference, a trade organization of shippers, the Puerto Rico Manufacturers Association, the Government of the Virgin Islands, and the Chamber of Commerce of Puerto Rico.

FMC regulations require that voluminous data, reflecting past and future operations, be filed in support of an application for a rate increase exceeding 3 percent.[4] Detailed revenue and expense forecasts for a pro forma test year must be made prior to the filing of an increase. The pro forma test year by regulation commences the next month after the effective date of the rate increase.[5] Because a rate increase may not become effective until after a 60-day notice period, a carrier's forecasts must necessarily project revenues and costs for a period 4-16 months after a forecast is made.

Prior to the effective date of the PRMSA general rate increases, the Commission ordered an investigation, with-

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[3] *See* S. REP. No. 1240, 95th Cong., 2d Sess. 2 (1978).

[4] 46 C.F.R. §§ 502.67, 512.2.

[5] *Id.* § 512.2(f)(1)(ii).

out suspension, of the rate increases of Sea-Land, TMT and GCML,[6] as well as PRMSA.[7] The investigation, Docket No. 81-10, was the first tradewide investigation held under the 1978 Amendments to the Intercoastal Shipping Act.

As required by the new law, the Commission published in the *Federal Register* the specific issues to be investigated:

(1) What is an appropriate rate of return for the carriers named as Respondents? In addressing this question consideration should be given to the average rate of return earned by other U.S. corporations and the inherent risks, if any, in operating in the affected trades.

(2) Is the methodology used by Respondents in making revenue and cargo volume projections appropriate?

(3) Are Respondents' revenue and cargo volume projections sufficiently accurate, and if not, what are the appropriate projections?

(4) Have Respondents properly calculated their cost projections covering labor, fuel, vessel maintenance and administrative and general expenses, and, if not, what are the proper calculations?

(5) Do the proposed rate increases impose an economic hardship on the affected interests repre-

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[6] Order of Investigation, Docket No. 81-10, 46 Fed. Reg. 11037 (Feb. 5, 1981).

[7] PRMSA's rate increases as originally filed on December 5, 1980 were based upon an eight-vessel complement, reflecting the anticipated acquisition of a new roll-on/roll-off vessel. When this acquisition fell through, PRMSA was given special permission to refile its application with all materials showing projected results under two possible vessel configurations. This Special Permission also granted PRMSA a new effective date of February 27, 1981. The investigation of the rate increases of the other carriers was expanded to include PRMSA. *See* 46 Fed. Reg. 15212 (March 4, 1981).

> sented by Protestants and Intervenors, and, if so, to what extent should this factor be considered in determining a reasonable rate of return for the carriers?

Joint Appendix (J.A.) at 178-79.[8]

The hearing was conducted almost entirely in written form in three rounds of simultaneous submissions labeled Direct, Rebuttal and Surrebuttal. The hearing was concluded on May 6, 1981, and the final briefs were submitted by June 15 to the Presiding Officer, an Administrative Law Judge (ALJ). On June 5, the Commission granted an extension of time for the final decision. Pursuant to that extension, the ALJ issued his decision on July 20, 1981, recommending approval of the increases of PRMSA, Sea-Land, and GCML. For TMT, the initial decision recommended neither approval nor disapproval of the increase, but stated that the ALJ was unable to find, from TMT's submissions, that TMT had presented sufficient evidence to carry its burden of proof that its increase was just and reasonable.[9] The ALJ suggested that TMT have another opportunity to show the Commission that its rate increase was justified by supplying more evidence or by referring to submitted evidence not discussed in its brief to the ALJ.

On September 25, 1981, the FMC issued the Order here under review, Docket No. 81-10, *Sea-Land Service, Inc., Trailer Marine Transport Corporation, Gulf Caribbean Marine Lines, Inc., and Puerto Rico Maritime Shipping Authority, Proposed General Rate Increases in the Puerto Rico and Virgin Islands Trades* (September 25, 1981). The Commission approved the increases of Sea-

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[8] The order adding PRMSA to the investigation announced for consideration the additional issue of whether the fixed-charges-coverage-rationale standard of reasonableness set out in 46 C.F.R. § 512.6(d)(3) should be used for PRMSA in light of its unique financial structure.

[9] Initial Decision (I.D.) at 65-70; J.A. at 123-28.

Land, GCML, and TMT, but disapproved PRMSA's increases to the extent they exceeded an average of 14.5 percent. The Commission ordered PRMSA to roll back its rates within thirty days and to refund to shippers that portion of the rate increase that had been found to be unreasonable and unjust.

PRMSA has petitioned for review of the decision. It challenges the Commission's rejection of its forecasted fuel expense, the Commission's calculation of the cost of debt for the group of companies used as a reference point for the proper rate of return for the carriers, and the composition of that reference group's asset base on which its rate of return was calculated. In a related case, consolidated with PRMSA's challenge, two protestant shippers also petitioned for review. The Government of the Virgin Islands and the Puerto Rico Manufacturers Association (together GVI/PRMA) challenge the allowed rate increases as unjust and unreasonable. First, they urge that TMT failed to carry its burden of proof as to the reasonableness of its rate increase. Second, they argue that the Commission made improper risk adjustments to rates of return. Third, they claim the FMC failed to consider the evidence before it and make findings as to three essential matters in the ratemaking. Finally, they assert that the Commission erred in failing to reject an allegedly unlawful expense claimed by Sea-Land.

A. *The Shippers' Status to Appeal the Commission's Decision*

As a preliminary matter, intervenor Sea-Land challenges the "status" of GVI/PRMA to petition for review. Sea-Land relies on a series of decisions concerning review of Interstate Commerce Commission (ICC) general revenue proceedings. We find Sea-Land's argument unpersuasive: it is based on a misconception of the ICC cases, and it ignores the special processes established by Congress in the 1978 Act for general revenue proceedings

before the FMC, which indicate the propriety of immediate plenary judicial review.

Courts have consistently held that shippers may not use review of an ICC general revenue hearing to challenge individual rates which will result from those general increases. In the seminal case of *Algoma Coal & Coke Co.* v. *United States*, 11 F. Supp. 487 (E.D. Va. 1935), a three-judge panel reviewed a decision by the ICC not to suspend new and higher tariffs filed by railroads. Coal shippers were seeking in the same proceeding to have the new tariffs on coal transportation declared unjust and unreasonable. The court held that these shippers lacked "status" to bring such a challenge for two reasons. First, the Commission decision not to suspend the new rates was, under settled doctrine, not judicially reviewable. *See id.* at 495; *Board of R.R. Comm'rs* v. *Great Northern R.R.*, 281 U.S. 412 (1930). Second, the appropriate method to gain review of specific rates was a separate shipper's remedy under section 13 of the Interstate Commerce Act that provided for challenge of individual rates. 11 F. Supp. at 493-94. A number of other courts have come to the same conclusion: specific rates may not be challenged during the review of an ICC general revenue hearing. *See Atlantic City Elec. Co.* v. *United States*, 306 F. Supp. 338 (S.D.N.Y. 1969) (three-judge panel), *aff'd by an equally divided Court*, 400 U.S. 73 (1970); *National Small Shipments Traffic Conference, Inc.* v. *United States*, 321 F. Supp. 500, 505-06 (S.D.N.Y. 1970) (three-judge panel); *Electronic Indus. Ass'n* v. *United States*, 310 F. Supp. 1286 (D.D.C. 1970) (three-judge panel), *aff'd*, 401 U.S. 967 (1971); *Florida Citrus Comm'n* v. *United States*, 144 F. Supp. 517 (N.D. Fla. 1956), *aff'd mem.*, 352 U.S. 1021 (1957); *Koppers Co.* v. *United States*, 132 F. Supp. 159 (W.D. Pa. 1955) (three-judge panel).

On the strength of these cases, one court has held that the result of a general revenue hearing is not reviewable on the complaint of shippers at all. In *Alabama Power*

Co. v. *United States*, 316 F. Supp. 337 (D.D.C. 1969) (three-judge panel), *aff'd by an equally divided Court sub nom. Atlantic City Elec. Co.* v. *United States*, 400 U.S. 73 (1970), the majority reasoned that *Algoma* and its progeny left disgruntled shippers with only one remedy: to challenge the individual rates applicable to them in separate proceedings. They could not challenge the general increase which spawned the individual increases. Since the plaintiffs in *Alabama Power* were contesting the general revenue determination and not its application to specific commodities, we find the *Alabama Power* court's reliance on the earlier ICC cases problematic. As Circuit Judge Wright noted in dissent, the courts in both *Algoma Coal* and *Florida Citrus* did review the results of the general revenue hearing at the behest of the shippers even though they refused to consider the effect on specific commodities. 316 F. Supp. at 339 (Wright, J., dissenting).

This interpretation of *Algoma Coal* is in line with the Supreme Court's discussion of the case in *Aberdeen & Rockfish R.R.* v. *Students Challenging Regulatory Agency Procedures* (SCRAP II), 422 U.S. 289 (1975). There the Court considered but declined to decide whether the shippers could obtain review of a general revenue hearing. *See id.* at 317 n.18.

Thus, in the current state of the law, it is unclear whether a general revenue hearing under the Interstate Commerce Act is reviewable on challenge of shippers.[10]

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[10] Our recent decision in Arizona Elec. Power Coop., Inc. v. ICC, No. 80-1761 (D.C. Cir. March 16, 1981), does not resolve this question. In that case we declined to review a decision by the ICC not to investigate or suspend a general rate increase filed by rail carriers. We relied on the well-settled principle that an ICC decision not to suspend or not to investigate is unreviewable by the courts of appeals. *See* slip op. at 7-8. *See also* Southern Ry. v. Seaboard Allied Milling Corp., 442 U.S. 444 (1979). We also relied on *Alabama Power* and *Atlantic City Electric* because the general rate increase had not received full agency consideration, but we did

Hence, it would seem inappropriate to deny status to the shippers here based on questionable precedent in ICC cases without looking to the specific provisions of the statutory scheme actually before us. Our examination of that statute and its legislative history leaves no doubt that the order before us is reviewable.

The 1978 Amendments to the Intercoastal Shipping Act of 1933 were intended to "expedite the decision-making process of the FMC in its regulation of the domestic offshore trades." S. Rep. No. 1240, 95th Cong., 2d Sess. 1 (1978). The changes to section 845 of title 46 dealing with review of general rate increases established streamlined procedures for consideration of these increases and endowed the Commission with greater power to suspend rates and order refunds. These changes were designed, *inter alia*, to "assure that the shipping public receives the benefit of prompt adjudication of matters before the Commission." *Id.* It is clear therefore that Congress considered shippers such as those represented by GVI/PRMA to have a distinct interest in general rate increase proceedings.

The congressional concern for expeditious resolution of general revenue proceedings also strongly militates in favor of shipper-triggered judicial review of the general-rate-increase hearing. Forcing shippers to resort to challenge of each individual rate would hardly foster rapid and consistent agency oversight of the general level of carrier rates. To be sure, review of a general rate increase cannot be used as a sham to attain review of a limited set of rates. The remedies provided by 49 U.S.C. § 821 to challenge individual rates are adequate and may well be exclusive for that purpose. But we believe the purposes of the Act are best served by allowing participation of interested shippers in review of the general

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not reach the question of whether this court could properly review the agency's plenary consideration of a general rate increase.

rate increase proceedings. And we are reassured by the fact that the FMC itself has not challenged the shippers' participation in this appeal or argued that such participation will obstruct its regulatory functions.

Finally, the petitioning "shippers" in this case are particularly well suited to bring a challenge to a general rate increase. Puerto Rico Manufacturers Association represents over one thousand shippers of many diverse products. The Government of the Virgin Islands properly represents the interest of its people as shippers and consumers. *See Government of Guam* v. *FMC*, 329 F.2d 251, 252-53 (D.C. Cir. 1964). There is no indication that either of these parties is proceeding with a hidden agenda, hoping to obtain premature review of specific rates rather than review of the propriety of the general rate increase. *Cf. Atlantic City Elec. Co.* v. *United States*, 306 F. Supp. 338, 342 (S.D.N.Y. 1969) ("But the fact remains that in this case as in [*Algoma*] plaintiff's real concern is the increased rates which the order authorized on the commodities in which they are interested."), *aff'd by an equally divided Court*, 400 U.S. 73 (1970).

We conclude, then, that the noncarrier petitioners have status to invoke this court's jurisdiction to review the FMC's general-rate-increase order.

B. *Standard of Review*

Before turning to the specific contentions raised by the parties, we address the applicable standard of review appropriate to the Commission's proceedings. Ratemaking is "an intensely practical affair" requiring the conversion of inexact data into exact rates or limits upon rates. *See Trans World Airlines, Inc.* v. *CAB*, 385 F.2d 648, 658 (D.C. Cir. 1967), *cert. denied*, 390 U.S. 944 (1968). Courts must take proper cognizance of both the difficulty of the task and the expertise of the agency performing it.

In *FPC* v. *Hope Natural Gas Co.*, 320 U.S. 591, 602 (1944), the Supreme Court stressed that rates should not be overturned for minor infirmities of method if they do not yeild an unreasonable result. In addition, a presumption of validity stemming from the agency's expertise adheres, and "he who would upset the rate order . . . carries the heavy burden of making a convincing showing that it is invalid because it is unjust and unreasonable in its consequences." *Id.*

In the *Permian Basin Area Rate Cases*, 390 U.S. 747, 791-92 (1968), the Supreme Court identified three essential responsibilities of a reviewing court:

> First, it must determine whether the Commission's order, viewed in light of the relevant facts and of the Commission's broad regulatory duties, abused or exceeded its authority. Second, the court must examine the manner in which the Commission has employed the methods of regulation which it has itself selected, and must decide whether each of the order's essential elements is supported by substantial evidence. Third, the court must determine whether the order may reasonably be expected to maintain financial integrity, attract necessary capital, and fairly compensate investors for the risks they have assumed, and yet provide appropriate protection to the relevant public interests, both existing and foreseeable. The court's responsibility is not to supplant the Commission's balance of these interests with one more nearly to its liking, but instead to assure itself that the Commission has given reasoned consideration to each of the pertinent factors.

Yet the court's review must not merely rubberstamp the agency's decision. The agency must make clear the "basic data and the whys and wherefores" of its conclusions. *Government of Guam* v. *FMC*, 329 F.2d 251, 255 (D.C.Cir. 1964). *See also Colorado-Wyoming Gas Co.* v. *FPC*, 324 U.S. 626, 634-35 (1945); *Commonwealth of Puerto Rico* v. *FMC*, 288 F.2d 419, 420 (D.C. Cir.

1961). We must determine whether the Commission properly carried out its mandate from Congress to review the carrier-filed rates for justness and reasonability. As the Supreme Court has noted: "That is not a standard so vague and devoid of meaning as to render judicial review a perfunctory process. It is a standard of finance resting on stubborn facts." *Colorado Interstate Gas Co.* v. *FPC*, 324 U.S. 581, 605 (1945) (footnote omitted). As Judge Leventhal commented sagely: "An agency's decision cannot rest significantly on a judgment pulled solely out of the air, without an anchor in the record. In appraisal of a record, however, generous dollops of judgment are proper and perhaps necessary." *Trans World Airlines, Inc.* v. *CAB*, 385 F.2d 348, 358 (D.C.Cir. 1967), *cert. denied*, 390 U.S. 944 (1968).

These general standards must be applied to the review of the particular proceeding before us.[11] Congress has mandated speedy resolution of hearings under section 845. Strict limits are placed on the time that may be devoted to creation of the record and to consideration of that record by the ALJ and the Commission.[12] As we said in a similar situation, "[t]he direction to the agency to provide expedition will be taken to heart by the Courts, as an indication of legislative policy." *Houston Lighting & Power Co.* v. *United States*, 606 F.2d 1131, 1145 (D.C.Cir. 1978), *cert. denied*, 444 U.S. 1073 (1980). The time limits set by Congress indicate that a reviewing court should accord the Commission "an extra dollop of deference." *Id.* This is especially true where, as here, strict time limitations have been coupled with specially mandated procedures for creation of the record. An order by Congress to consider a matter expeditiously is not a

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[11] "The Commission's exercise of its regulatory authority must be assessed in light of its purposes and consequences, and not by reference to isolated phrases from previous cases." Permian Basin Area Rate Cases, 390 U.S. at 791 n.60.

[12] *See* 45 U.S.C. § 845(b); S. Rep. No. 1240, 95th Cong., 2d Sess. 9-10 (1978).

mandate to be arbitrary, capricious, irrational or sloppy. But strict time frames within which to work may require an agency to make its decision on a record more slender than desired and may render acceptable an unusually terse explanation of reasoning. Nonetheless, we examine the conclusions of the Commission to ensure they are based on consideration of all salient factors and are grounded in substantial evidence on the record.

II. PRMSA's Challenges

A. *PRMSA's Fuel Forecast*

PRMSA's forecast of rising fuel prices for the pro forma year was the single most significant item in its overall cost-based presentation, accounting for over one-half of the carrier's requested increase. *See* J.A. at 622. The ALJ accepted PRMSA's forecast,[13] but the Commission rejected it as based on a tenuous methodology and as inconsistent with marked changes in circumstances occurring since it had been tabulated months earlier. C.D. at 32-35; J.A. at 32-35. PRMSA urges that this rejection is unsupported by the record and is contrary to law.

PRMSA's forecast of fuel cost in large part relied for its veracity on the forecast of an independent forecasting organization, Data Resources, Inc. (DRI). The forecast proceeded in three steps. First, PRMSA calculated a correlation of .9501 between its actual fuel prices from the first quarter 1978 through the fourth quarter 1980 and the Average Refiners Acquistion Domestic crude oil actual price (ARAD) as reported by DRI.[14]

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[13] I.D. at 76-79; J.A. at 134-37. A close reading of the ALJ's decision reveals that he did not so much accept the methods and results proffered by PRMSA as reject the various criticisms of the forecast by other participants.

[14] This correlation established that the two prices tended to vary together, e.g., a change in one could be used to explain most of the change in the other.

Next, PRMSA performed a least-square linear regression on its actual cost data for each quarter of 1980 and projected those costs linearly through 1981 to the first quarter of 1982 (the end of the test year). PRMSA used only 1980 data (four points, one for each quarter), because they showed a high correlation to ARAD prices during that year (.989), *see* J.A. at 650, and because they "reflected the effect of the Iranian oil problem."

Finally, PRMSA correlated the linear projection for the test year with the DRI forecast of ARAD prices for that period, deriving a correlation of .995. On the strength of that correlation, PRMSA adopted the regression projection for the test year. PRMSA strenuously argues that this correlation gave its projection credibility. We note, however, that the second step in the exercise, i.e., the linear projection of the 1980 prices, is the heart of the forecast, and it is a straight-line extrapolation of prices from the actual 1980 data. The first step establishes that PRMSA's price for fuel and ARAD prices have correlated in the past, and the last step establishes that the forecasted PRMSA prices are correlated with DRI's ARAD forecast for the future period as well. Neither correlation indicates how well the straight-line extrapolation fit the 1980 data on which it was based, and PRMSA nowhere explained the import of a high correlation between its forecast and that of DRI.

The Commission rejected the PRMSA forecast for three reasons, one of which has been abandoned on appeal.[15] The first reason is that the forecasting method was "very tenuous." The Commission criticized the use of only four points as the basis of PRMSA's extrapola-

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[15] The Commission noted that PRMSA's fuel forecast was inconsistent with that of the other carriers. *See* FMC Brief at 54 n.15. It apparently concedes at this point that it improperly attempted to compare the price of Bunker C fuel and diesel fuel.

tion and the reliance on a "theoretical statistical correlation" between its extrapolation and the DRI forecast. Second, the Commission found that "dramatic changes in world oil markets have caused [the ARAD] forecasts to change substantially since the initiation of the proceeding." C.D. at 33; J.A. at 33.

The Commission concluded that these deficiences would "ordinarily warrant disapproval of PRMSA's forecast." C.D. at 34; J.A. at 34. Faced with the problem, however, that no reliable alternative forecast had been presented,[16] it determined that the proper course was a "pragmatic adjustment of the carrier's projections." Therefore, it accepted as a base fuel cost to be applied throughout the pro forma year the last known price actually paid by PRMSA at the beginning of the test year:

> [I]n this case there is simply no alternative forecast data which can be applied to PRMSA. Therefore, the Commission basically has three options: (1) adopt the Presiding Officer's findings due to a lack of an alternative forecast; (2) find that PRMSA has not sustained its burden of proof and deny its proposed rate increase; or (3) utilize the last known price level actually paid by PRMSA throughout the test year. It is clear that the particular circumstances of this proceeding require a pragmatic adjustment of the carrier's projections. *Permian Basin Area Rate Cases, supra*, at 800. The last alternative is the most acceptable for two reasons: (1) PRMSA's last known fuel cost approximates the test year projections of the other carriers, and (2) all of the petroleum "trade intelligence" entered in to the record in this proceeding support [sic] the conclusion that petroleum prices are likely to level off the remainder of 1981.

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[16] GVI/PRMA had presented an alternative trend analysis based on updated ARAD forecast data. This was rejected by both the ALJ and the Commission as adequately rebutted by PRMSA's testimony. *See* C.D. at 33 n.36; J.A. at 33 n.36.

C.D. at 34-35; J.A. at 34-35. In addition, the Commission took cognizance of the legal right under the statute of the carrier to file a cost-pass-through rate increase if it turned out that fuel prices actually were above the base cost, whereas shippers would have no adequate remedy if the allowed estimate turned out to be too high.

PRMSA challenges each of the Commission's reasons for rejecting its fuel forecast. First, PRMSA argues that its estimate was clearly reasonable when first submitted to the agency. Then, it argues that the Commission acted contrary to law when it used evidence of subsequent world events to reject a projection that was reasonable when submitted in accord with the timetable of the statutory scheme for rulemaking. PRMSA's objections must be rejected.

PRMSA made the simplest of possible forecasts: a linear projection based on a limited number of points in 1980. The Commission found the data basis for the linear projection of fuel prices in 1980 to be too small, and we cannot say that the Commission is palpably in error. It also questioned the efficacy of a mere straight-line extrapolation, *see* C.D. at 33 n.36; J.A. at 33 n.36, basing its skepticism on examination of the actual data which formed the basis of PRMSA's forecast and concluding from them that the data did not readily lend themselves to a straight-line trend analysis. Again, we cannot say this conclusion is so unreasonable as to constitute an abuse of discretion.[17]

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[17] The Commission referred to Exhibit C of the rebuttal testimony of PRMSA witness Vasquez. *See* J.A. at 825. This data sheet shows the relevant PRMSA fuel prices in dollars per barrel for 1980 to be 19.26, 20.60, 21.39, and 28.03, and hence shows quarterly increases of 1.34, .79 and 6.64. From this, PRMSA forecast a steady quarterly increase of 2.74. Given the wide variance of changes from quarter to quarter in 1980, it was not unreasonable for the Commission to question a forecast methodology that assumed a constant increase per quarter.

PRMSA urges that, however small its baseline data for projection, the high correlation between its forecast and that of a highly respected, independent organization, DRI, provided any needed component of additional credibility to the forecast. The Commission found the import of this correlation elusive, however, since no relationship had been shown on the record between DRI's past ARAD forecasts and PRMSA's costs. The PRMSA-DRI correlation involved only the extrapolated figures for the future. We see no error in the Commission's reasoning.

PRMSA's forecast, as the Commission suggested, would have been far stronger if the correlation had included past PRMSA fuel costs and the DRI forecasts for the same period. The correlation actually presented to the Commission proved too little. A correlation coefficient measures the amount of symmetrical movement between two series: if, as one series experiences relative change, the other series also changes a similar amount relative to itself, the two series will correlate well.[18] In this case, the PRMSA forecast was strictly linear due to its method of derivation—it predicted equal increases in each quarter. The high correlation between PRMSA's forecast and DRI's forecast therefore demonstrates nothing more than that both were predicting a relatively linear increase in fuel prices. Any two positively sloped linear functions of the same variable will have a perfect correlation. Thus, the implications of the correlation were limited.

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[18] For example, a high correlation between height and weight of a group of people would show whether increases and decreases from the average in height are paralleled by similar increases and decreases from the average weight. The matching changes would not be equal in amount (one pound for one inch), but rather would show, for example, similar increases in weight for each increase in height. The correlation coefficient will indicate how much of the variation in weight can be explained by the variation in height. *See generally* F. KOHOUT, STATISTICS FOR SOCIAL SCIENTISTS 152-67 (1974).

By itself, the correlation also left many critical questions unanswered. Since the correlation concerned only the forecasted period, it did not indicate whether DRI had, like PRMSA, predicted the forecasted fuel costs to be a linear continuation of actual 1980 costs. Nor would this correlation show how well PRMSA's linear regression fit the four points which were its basis. There are statistical indicators which would illuminate these issues, and PRMSA bore the burden of presenting them to the Commission in a convincing manner. Thus, PRMSA is incorrect when it suggests that this high correlation between its forecast and that of DRI left the FMC no choice but to accept its forecast.

The Commission also based its rejection of PRMSA's forecast on what it perceived as marked changes in the circumstances of the world oil markets. PRMSA assails this reasoning on two grounds. It claims first that there is insufficient support in the record to allow the Commission to take into account any post-filing changes in these world markets, and second, that consideration of such changes and their effect on PRMSA's actual post-filing costs is contrary to the rules for test-year ratemaking set forth by this court in recent decisions.

Both of these contentions lack merit. First, the record does reflect that world oil markets were in a state of flux at the time of the ratemaking hearings. *See* J.A. at 701-02, 704-12. Although the newspaper articles and other materials inserted in the record dealing with potential stagnation in the oil market might not compel any particular conclusion as to the future of world oil prices, they were sufficient to arouse in the Commission a legitimate uneasiness and skepticism about a prediction based solely on the experience of the prior year that would result in an 88-percent rise, totaling over $25,000,000, in PRMSA's fuel costs over the next year.

PRMSA urges that it was improper for the agency to take "official notice" of any leveling off of fuel prices

not contained in the submission of the parties, relying on the Supreme Court's decision in *Ohio Bell Telephone Co.* v. *Public Util. Comm'n*, 301 U.S. 292, 301 (1937). There the Court overturned a state agency's calculation of property values as going beyond its statutory authority because the agency used extra-record evidence to make detailed valuations "upon the strength of information secretly collected and never yet disclosed." *Id.* at 300. The Court explained the proper role of judicial notice:

> An attempt was made by the Commission and again by state court to uphold this decision without evidence as an instance of judicial notice. . . . Courts take judicial notice of matters of common knowledge. . . . They take judicial notice that there has been a depression, and that a decline of market values is one of its concomitants. . . . How great the decline has been for this industry or that, for one material or another, in this year or the next, can be known only to the experts, who may even differ among themselves.

Id. at 301 (citations omitted). PRMSA urges that this case is similar and that the Commission had no basis for its critical finding that "petroleum prices are likely to level off the remainder of 1981." We think this case is not at one with *Ohio Bell*, because of both the nature of the information noticed and the use made of it by the Commission.

First, the Commission used the changes occurring in world oil markets that *were* documented in the record, *see* J.A. at 704-12, to reject PRMSA's forecast methodology, which assumes unchanging conditions. This was a judgment it was authorized to make in the course of deciding whether the carrier had carried its burden of proof. To the extent that the Commission may have looked beyond the record to the "common knowledge" that an oil glut might be in the making which was

likely to retard the increase of prices, it was making use of the kind of general and gross economic and financial information condoned in *Ohio Bell*. Our conclusion might be very different had the agency tried to use the existence of turbulence in the oil market to determine an exact rate.

The base fuel cost adopted by the Commission was not the result of computations based on evidence not on the record. Instead it was a pragmatic adjustment in the absence of persuasive proof by either the carrier or shippers as to an appropriate estimate of fuel prices for the forthcoming test year. As the Commission pointed out in its decision, it could have denied the carrier a rate increase altogether for failure to sustain its burden of proof. Instead the Commission used the last known price level actually paid by PRMSA, a figure on the record,[19] and consistent with "trade intelligence" also on the record indicating that prices would most likely level off. This judgment by the agency was consistent with both its role as an expert decisionmaker and its mandate from Congress to act in a restricted time frame on a limited record. As this court has observed in the past, "when the evidence of record does not fairly establish either a proposition or its contrary, the agency is within its sound discretion in adhering to what is knowable and avoiding what is necessarily in the domain of speculation." *Trans World Airlines, Inc.* v. *CAB*, 385 F.2d 648, 659 (D.C. Cir. 1967), *cert. denied*, 390 U.S. 944 (1968).

PRMSA also argues that it was improper for the Commission to consider any evidence of PRMSA's actual post-filing fuel costs. Relying on two recent decisions of this court, PRMSA argues that its forecast if reasonable when made must be accepted by the agency unless there is a substantial disparity between its prediction and actual results and unless the use of the estimate would yield an unreasonable rate. *See Indiana & Mich. Mun. Distrib.*

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[19] J.A. at 916.

Ass'n v. *FERC*, 659 F.2d 1193 (D.C. Cir. 1981); *Villages of Chatham & Riverton, Ill.* v. *FERC*, 662 F.2d 23 (D.C. Cir. 1981). Once again, we think PRMSA has overread our decisions and misunderstood what the Commission actually did in this case.

Both *I & M* and *Chatham* dealt with utility test-year estimates that varied from the actual experience of the utility. In *I & M* the challengers urged that the digression of actual results from the prediction was sufficient to render the test-year figure unreasonable when made. 659 F.2d at 1197. This court refused to accept that conclusion: "[T]o *require* routine revision of the estimates in light of actual developments would defeat the purpose of the test-year methodology." *Id.* (emphasis added). This court was concerned that such a course would not only "result in interminable delays in already lengthy rate proceedings but would encourage dilatoriness in challengers in the hope that history would spoil the utility's estimated cost of service." *Id.* at 1197-98 (quoting *Indiana Municipal Electric Ass'n* v. *FERC*, 629 F.2d 480, 483 (7th Cir. 1980)). We concluded that the Commission was proper in requiring only that a utility prove that its estimates were reasonable when made. "Once the utility has demonstrated the reasonableness of its estimates, the challenging party has the burden of showing that 'subsequent events indicate that to use [the estimate] as a basis for future projections would yield unreasonable results.'" 659 F.2d at 1198.

Based on that decision and similar cases, this court in *Chatham* inferred appropriate criteria for judicial review of test-year ratemaking:

> The utility must demonstrate that its estimates were reasonable when made, either by explaining the chain of reasoning that it employed to arrive at its projections, or by comparing its estimates with actual data, and so establishing their accuracy. If the utility proves that its estimates were reasonable

> when made even though at variance with the actual results, the Commission *may* nonetheless credit those estimates, a decision further substantiated by evidence indicating that the actual figures are based upon unusual or unique circumstances. And of course the Commission is obligated to consider contrary evidence introduced by customers and other parties, as well as the magnitude of the disparity between expectation and reality.

662 F.2d at 29-30 (emphasis added).

As we read these decisions, an agency is permitted to accept an estimate that does not comport with what actually happened later on, but the agency is not required to blindfold itself, ignoring dramatic changes in circumstances which surface during the ratemaking proceeding and are bound to affect the estimate. It may take into account evidence which contradicts the reasonableness of the estimate beforehand as well as the magnitude of the disparity between the estimate and experience afterward. In this case, the disputed estimate accounts for over half of the proposed rate increase, so that a significant variance from the estimate would have enormous consequences for shippers. Such a dilemma clearly calls for the application of the agency's judgment in deciding whether to accept the estimate. *See Public Serv. Co.* v. *FERC*, 575 F.2d 1204, 1215-16 (7th Cir. 1978).

This conclusion is bolstered by the nature of the FMC proceeding mandated by Congress. In the Federal Energy Regulatory Commission cases, the agency decision was rendered well after the test year was completed.[20] Detailed actual-cost information would be available for

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[20] In *I & M*, the test year was 1976 and the FERC issued its opinion in March 1980. *See* 559 F.2d at 1194, 1197. In *Chatham & Riverton*, the test period spanned mid-1976 through mid-1977, the Initial Decision of the ALJ was issued in January 1979, and the Commision promulgated its decision in March 1980. *See* 662 F.2d at 26, 28.

most estimated elements of any proposed rate change and, as noted above, protesting parties might be encouraged to delay proceedings in order to gather additional contradictory data. In contrast, the hearings conducted under the authority of 46 U.S.C. § 845 are perforce of restricted duration. The limit, even with one extension, of 240 days for the hearing and decision ensures that the record will be closed and the Commission will render its decision before wholesale data are available on the test year.

It is clear the Commission will not in general overturn solid estimates in light of actual experience. Indeed, it did not do so here. Instead, the Commission has used information in the record about later developments in the oil market to conclude that the original estimate itself is shaky. This would be acceptable even if the estimate had been reasonable when originally offered by the carrier based on information then available. It is clear in this case, however, that the Commission rejected that contention as well due to PRMSA's tenuous methodology. The Commission's action does pose a question of when the reasonableness of a carrier's estimate is to be judged: when proffered by the carrier in its initial rate filing or when evaluated by the Commission in light of the record created at the rate-increase hearing. There probably is no single right answer. As to this proceeding,[21] however, we hold that it was well within the discretion of the Commission to consider information on the record concerning current developments in the oil market when evaluating the reliability of the estimates presented in a carrier's rate filing.

PRMSA points out nonetheless that under FMC regulations it must make its case in chief well before the hearing begins and before the agency even decides a hearing is appropriate. In light of the restrictions placed on

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[21] We intimate no opinion as to the proper time to measure reasonableness in a proceeding more closely aligned to the FERC cases above.

updating its submissions for cost increases, PRMSA claims that it is unfair to allow downward revision of its estimates based on the hearing. It would restrict the issue before the Commission to whether any estimates were reasonable in light of information available at the time of their initial submission to the Commission.

We have some sympathy for PRMSA's plight. It may seem at first glance unfair to a carrier operating in a fast-breaking energy market to be forced to react and adjust to events up to the moment of decision. But it would be even more unfair to saddle shippers for an entire year with unrealistically high rates based on already inflated fuel costs simply to preserve the orderliness of the ratemaking scenario. The FMC is not merely a referee, ensuring fair play with no interest in the particular outcome. It is charged with determining whether the rates proposed by the carrier are just and reasonable. This difficult responsibility requires use of the information properly before it to arrive at a conclusion consistent with the public welfare. The agency should not and cannot, consistent with its statutory obligation, base rates on cost estimates that, even if reasonable when first presented, are later contradicted by record evidence and would lead to an unjustified burden on shippers. Moreover, a carrier like PRMSA may file expedited general rate increases if and when it finds the rates allowed by the Commission to be too low, while shippers have no comparable remedy for rates that prove too high. We thus conclude that the agency acted appropriately in making pragmatic adjustments based on current fuel costs at the time of decisionmaking and rejecting the earlier PRMSA estimate as the basis for projecting fuel costs in the test year.

B. *The Embedded Cost of Debt*

PRMSA's last two challenges to the FMC's rate review deal with the calculation of an appropriate rate of return. Theoretically, the carriers should be allowed to earn

a rate of return equal to that earned by comparable unregulated companies, that is, companies which face similar financial and business risks (the reference group). Nearly all the expert witnesses who testified on the matter, however, calculated the rate of return earned by a large, presumably average, group of companies and then adjusted that rate of return based on the relative risks faced by the carriers.

The Commission essentially accepted the rate-of-return calculations of Mr. Copan, the expert witness of its own Bureau of Investigation and Enforcement (BIE). PRMSA assails Mr. Copan's calculations on two bases: he included an unexplained cost of debt of 7 percent for the reference group, and he overstated the rate base on which the reference group's rate of return was calculated. We find both challenges unavailing.

Copan used the embedded cost of debt as he plugged numbers into his formula for the rate of return of the reference group. This embedded cost is the cost of servicing the outstanding long-term debt of the reference group for the years being examined, including debt incurred many years before. Copan derived the rate of return of the reference group on total capital by dividing Net Income (after taxes) and Interest on Long-Term Debt by Stockholders' Equity plus Long-Term Debt. J.A. at 752. In order to derive a number for "Interest on Long-Term Debt," Copan multiplied Long-Term Debt by .07. He did not explain this, and it becomes clear that he did so only from a footnote to one of his working papers. *See* J.A. at 900. In his surrebuttal submission, PRMSA's expert Silberman criticized Copan's estimate as lacking any stated basis and probably too low. He did not offer any reasons for his conclusion or suggest a different estimate. *See* J.A. at 935-37. Because the statement was in the last round of submission, Copan did not respond.

The ALJ generally accepted Copan's overall rate-of-return calculation, which yielded a return of 17 percent

for PRMSA, but took Silberman's criticism to heart. He said, "Considering what has happened to the cost of borrowing money in the past five or more years, Mr. Copan's estimate of 7 percent for interest seems too low." He therefore suggested that Copan's resulting rate of return of 16 to 17 percent should be adjusted upward to 17 to 18 percent. He concluded that "no more reliable range can be determined on this record." Initial Decision (I.D.) at 40; J.A. at 98. Earlier, the ALJ had suggested that the 7-percent figure be further justified in the exceptions to his Initial Decision filed with the Commission. I.D. at 38; J.A. at 96.

In its decision, the Commission brushed aside the concerns of the ALJ and accepted Mr. Copan's rate-of-return calculation with some adjustments based on other considerations. It said that it did "not share the Presiding Officer's skepticism regarding the imbedded debt cost."

> The bases cited for the Presiding Officer's belief that the 7% interest figure was "too low" were the current cost of money, the estimate of Dr. Ileo and the arguments of PRMSA in its brief. The figure used by Mr. Copan was not intended to reflect the current cost of money but the average interest costs of U.S. manufacturing firms from 1968-1979. It is certainly beyond dispute that average interest rates were lower during that period of time than they are today. Mr. Copan adjusted his rate of return results for current trends in the cost of money by 2%, thereby compensating for any potential distortion. Dr. Ileo's 9.5% interest estimate was applicable *only* to 1980 and this supports rather than undermines Mr. Copan's estimate of a significantly lower rate for an earlier period. Finally, assertions of PRMSA's counsel on brief do not alone impeach the otherwise reliable expert opinion of Mr. Copan. Therefore, the benchmark rate of return computed by Mr. Copan, 14.5%, is the most, and possibly the only,

> reliable testimony on the rate of return issue in the record.

C.D. at 14-15; J.A. at 14-15 (footnotes omitted).

PRMSA asserts that the reasons underlying the Commission's acceptance of Copan's estimate are in error and therefore the Commission's conclusion should be rejected.[22] The Commission apparently concedes that the 2 percent added by Copan was not intended to correct any error in the 7-percent figure, and it agrees that PRMSA's brief did refer to Silberman's testimony that disputed Copan's estimated interest. PRMSA also argues that the 9.5-percent figure of the expert Dr. Ileo lends little, if any, support to Copan's estimate. PRMSA argues that the Commission should be reversed because it has based its decision on mistaken findings, and the remaining reason cannot support the agency's position.

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[22] PRMSA urges that Copan's 7-percent figure should also be rejected as unsupported in the record. The Commission's decision finds support here in the estimate of an expert. The expert need not always give additional support beyond his expertise, although the quantum of support offered by the expert is, of course, to be considered by the Commision as it evaluates the reliability of the expert's testimony.

PRMSA also urges that the Commission erred when it reversed its ALJ without evidentiary support. It relies on an inapposite case steeped with first amendment issues and other complications not relevant here. *See* Meehan v. Macy, 392 F.2d 822, 839 (D.C. Cir. 1968) (review of discharge of a Panama Canal Zone employee who protested policies of the Zone commander), *modified and aff'd en banc*, 425 F.2d 472 (D.C. Cir. 1969) (per curiam).

As we stated in Greater Boston Television Corp. v. FCC, 444 F.2d 841 (D.C. Cir. 1970), *cert. denied*, 403 U.S. 923 (1971):

> The agency's departures from the Examiner's findings are vulnerable if they fail to reflect attentive consideration to the Examiner's decision. Yet in the last analysis it is the agency's function, not the Examiner's, to make the findings of fact and select the ultimate decision, and where there is substantial evidence supporting each result it is the agency's choice that governs.

Id. at 853 (footnotes omitted). Here the Commission's conclusion is adequately supported in the record by Mr. Copan's testimony.

PRMSA relies on *Braniff Airways, Inc.* v. *CAB*, 379 F.2d 453 (D.C. Cir. 1967), in which this court held that remand to an agency is called for when the agency has based its decision on a finding not supported by any evidence. *Id.* at 466. In that case, a decision of the Civil Aeronautics Board was remanded because it assigned new routes based on palpably erroneous findings concerning existing facilities and routes. The essential question on judicial review was whether the agency would have come to the same conclusion had it been aware of its error. *Id.* We have no doubt in this case that any errors in this portion of the Commission's decision were "harmless" and were not necessary to its acceptance of the 7-percent figure.

The agency was faced with a voluminous record with the rate-of-return calculations of a number of experts. It found Copan's method and result to be "the most, and possibly the only," reliable testimony on the rate-of-return issue in the record. C.D. at 15; J.A. at 15. The carriers' witnesses did not convince the Commission, nor did the shippers'. Acceptance of the result of the neutral expert was a reasonable alternative to rejection of the rate increase due to the carriers' failure to meet their burden of proof. Minor errors by the Commission do not change our conclusion in this regard. The reasons challenged by PRMSA were obviously subsidiary to the Commission's primary finding that Copan's testimony should be accepted *in toto* as most reliable. The explanation quoted above related to why the Commission was not concerned about this conclusion.[28] Where the agency has

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[28] The Commission first explained that it found the 7-percent figure reasonable for long-term debt because much of this debt was incurred prior to the current high rates. We see no error in this reasoning. It then stated that Copan's additional 2 percent would reduce the effect of any inaccuracy. Since the Commission had found the figure reasonable, an inaccurate statement about compensation for any possible distortion has little significance. The Commission did not err when it found Dr. Ileo's testimony com-

made reasonable use of its discretion based on a severely truncated proceeding as required by Congress, there is little to be gained by remanding for reconsideration of insubstantial, subsidiary errors.

The Commission also acted within its discretion when it accepted Copan's formulation which did not include short-term interest. We find no indication that this omission creates an unreasonable result, even though a theoretically more accurate figure might have otherwise been produced. There will always be finer and finer adjustments to be made in a practical science such as the estimation of rates of return. Yet at some point an agency must make "pragmatic adjustments" in light of the limits of agency resources, time, and human comprehension. If the consequences are unreasonable, they cannot stand. *FPC* v. *Hope Natural Gas Co.*, 320 U.S. 591, 602 (1944). In light of the constraints on the agency, however, we find that this particular "product of expert judgment" well deserves its "presumption of validity."

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patible with and possibly supportive of Copan's figure. Finally, the Commision stated it was unmoved by the arguments in PRMSA's brief.

It is unimportant that, as PRMSA notes, the brief included a citation of PRMSA's witness and not mere legal argument. The FMC was not required to be convinced. We also note that PRMSA's brief cites its witness for the number estimated by Copan, not the proposition that the figure was too low. *See* PRMSA Opening Brief Before FMC 38-39; J.A. at 216-17. Further, the cited portion of the Silberman testimony does not criticize the figure as too low, but only as an estimate without basis. *See* Silberman Surrebuttal at 23; J.A. at 936. On the following page the estimate is termed "apparently an incorrect, low interest rate." *Id.* at 24; J.A. at 937. The testimony gives *no* support or reasoning for the conclusion that the estimate was "apparently" low. Thus, the fine shred of expert testimony on which PRMSA would have us reverse the agency was not even cited to the agency in the brief that was putatively more than a brief. There is no indication that the Commission failed to consider properly the testimony of PRMSA's expert, and no indication of abuse of discretion in the Commission's rejection of the arguments in PRMSA's brief.

Id. The conseqences here are not unjust and unreasonable, and the Commission's actions are upheld.

C. *Total Capital of the Reference Group*

PRMSA's final challenge concerns the interpretation of the FMC's General Order 11, which sets forth the manner in which the reasonableness of a rate will be evaluated. In pertinent part, the Order states: "The reasonableness of a carrier's return on rate base will be based on a comparative analysis of the carrier's projected return on rate base with the rate of return on total capital earned by comparable U.S. corporations." *See* 46 C.F.R. § 512.6(d)(2)(ii) 1980. The question before us is whether the Commission properly interpreted "total capital" when it rejected the carrier's approach to calculation of the rate of return of the comparable, or reference group, corporations.

At the outset, we note that an agency's interpretation of its own regulations is owed substantial deference. In *Udall* v. *Tallman*, 380 U.S. 1, 16 (1965), the Supreme Court acknowledged the "great deference" shown to an agency's interpretation of the statutes it must administer. The Court continued, "When the construction of an administrative regulation rather than a statute is in issue, deference is even more clearly in order." *Id.* We will accept the interpretation so long as it does not do violence to the language of the regulation itself.

> Since this involves an interpretation of an administrative regulation a court must necessarily look to the administrative construction of the regulation if the meaning of the words used is in doubt. . . . [T]he ultimate criterion is the administrative interpretation, which becomes of controlling weight unless it is plainly erroneous or inconsistent with the regulation.

Bowles v. *Seminole Rock & Sand Co.*, 325 U.S. 410, 413-14 (1945). Applying these principles we have no trouble upholding the Commission's interpretation.

The "total capital" of the reference group is used to calculate its return on that capital. The carrier is then permitted an equivalent return on its rate base, adjusted for risk. Under the FMC's regulations, the rate of return experienced by the reference group is to be calculated over an extended period of time and then adjusted, where appropriate, for trends over that period and the cost of money.[24]

Utilities and other regulated industries have long been restricted to a rate base that is "used and useful" in providing the service under regulation. *See Tennessee Gas Pipeline Co.* v. *FERC*, 606 F.2d 1094, 1109 & n.52 (D.C. Cir. 1979). This prevents ratepayers from bearing more than the cost of providing a reasonable return on the assets employed to provide them service. The FMC has also precisely defined a carrier's rate base to include only assets which are involved in the regulated trade. *See* 46 C.F.R. § 512.6(b). As quoted above, however, the FMC has not explicitly restricted the base on which the rate of return of the reference group should be calculated to include only assets or investments related to operating income. PRMSA's expert witness Silberman attempted to do so, arguing that proper interpretation of the Commission's regulations requires exclusion of nonoperating assets from the "total capital" of the reference group. The ALJ rejected Silberman's method as inconsistent with the Commission's regulations, I.D. at 44 & n.21; J.A. at 102 & n.21, and the Commission adopted this result. C.D. at 13; J.A. at 13.

Silberman calculated the rate base of the reference group by adding its fixed assets to its working capital, thus excluding noncurrent assets. The noncurrent assets

[24] *See* 46 C.F.R. § 512.6(d)(2)(ii).

were excluded because they were felt to be typically nonproductive or productive at a significantly lower rate than current assets. BIE's Copan recalculated the rate base and related return with a rate base including the noncurrent assets, saying that he was compelled to do so by Commission regulations. J.A. at 971.

At base, this is a question of interpretation. The Commission has interpreted its own regulations to preclude the use of a surrogate rate base for "total capital" and we find no reason to disturb this result. PRMSA argues that its own witness at the hearings which led to the adoption of the regulation advocated the approach incorporated by the regulations and that its witness intended that the "total capital" of the reference group be a surrogate for rate base. However accurate PRMSA's attempt to divine the intent of its own witness, the Commission is not necessarily restricted in its interpretation of its own regulation by the testimony of particular witnesses presented prior to adoption. This is the first case of which we are aware in which the Commission has interpreted the regulation and we find that interpretation to be plainly consistent with its wording.

Having accepted the Commission's interpretation of the regulation, we must examine whether the regulation as interpreted is a reasonable one. *Bowles* v. *Seminole Rock & Sand Co., supra.*, 325 U.S. at 414. PRMSA argues that its interpretation, and not the Commission's, is most consistent with the function performed by the comparable return calculation. Barring an arbitrary or capricious result, however, this is most appropriately a question for the Commission in the exercise of its expertise, balancing the ease with which an interpretation may be implemented and the accuracy of the results obtained. It should be noted that the "surrogate" calculated by Silberman used current and noncurrent assets rather than operating and nonoperating assets. Although Silberman testified that this would exclude some elements he felt

properly excluded, he did not and could not indicate that this was all that was eliminated by excluding noncurrent assets.

It is not arbitrary to calculate the return of the carriers based on the whole of the reference companies' assets, nor is it confiscatory. *See West Ohio Gas Co.* v. *Public Util. Comm'n*, 294 U.S. 63 (1935); *Bluefield Water Works & Improvement Co.* v. *Public Serv. Comm'n*, 262 U.S. 679 (1923). Therefore we decline to thrust another interpretation upon the Commission or to disturb its rejection of PRMSA's calculations based on its interpretation.

Further, as the Commission asserts, consideration of all assets of the reference group in comparing earnings is appropriate because the carriers will compete in capital markets with the total companies in the reference group, not just their operating assets. We note, in addition, that although a lower rate of return for the reference group's nonoperating assets may be assumed—as PRMSA argues—it is also likely that the same nonoperating assets carry a lower risk. Thus the higher risk premium adjustment given the carriers by the Commission would tend to equalize or at least minimize the disparities between the bases for the comparative rates of return of the two groups.[25] Given the uncertainties of the surrogate rate base proposed by PRMSA's expert, as well as the pervasive practicalities of expedited ratemaking, we find no basic flaw in the Commission's approach.

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[25] PRMSA attempts to show that Copan, the BIE's witness, agreed that a carrier could not compete for capital if it held nonoperating assets with a lower rate of return and had its operating return restricted to the total rate of return of the reference group. Mr. Copan agreed to this assertion assuming any later adjustment for risk. *See* J.A. at 543. The risk-spreading effect of the nonoperating assets, typically of lower return and lower risk, will normally give the reference group a different risk profile than if only its operating assets are considered. Thus adjustments for risk will tend to take into account the difference between "total capital" and the carrier's rate base.

III. Shippers' Challenges

A. *GVI/PRMA's Criticism of the Risk Premium*

GVI/PRMA, representing the shippers' interests, challenge the adjustment made to the carriers' rates of return based on their risk relative to the reference group. They argue that no analysis was made of the risk of the reference group, insufficient weight was given to the impact on ratepayers, and the risk premiums ignore price collusion between the carriers, which would decrease the relative risk to each carrier. We find these contentions unavailing.

The Commission accepted the risk premiums developed by BIE witness Copan. He adjusted the rate of return experienced by his reference group for the difference in risk between the reference group and each carrier. He subjectively analyzed the business and financial risk of each carrier and accordingly increased his calculated benchmark rate of return. This is consistent with both general ratemaking practices[26] and the regulations of the FMC.[27]

The reference group used by Copan was "all U.S. manufacturing corporations," as reflected in reports filed with the Federal Trade Commission.[28] It is facially reasonable for an expert to assume that such a large sample has an average rate of return which reflects average risk.

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[26] *See* Leventhal, *Vitality of the Comparable Earnings Standard for Regulation of Utilities in a Growth Economy*, 74 Yale L.J. 989, 1001 (1965) ("Not only may the difficulties of finding non-regulated enterprises of corresponding risk be finessed by taking unregulated businesses of different risk and by making practical adjustments for differences in risk with the exercise of judgment, but the comparable-earnings test also permits the use of groups of other companies, rather than individual companies, for purposes of providing a comparison of range of returns.").

[27] *See* 46 C.F.R. § 512.6(d)(2)(ii).

[28] *See* J.A. at 749, 751.

This being the case, that average risk need only be adjusted for risks faced by the carriers that are greater or less than average. It was for the Commission to decide whether this expert witness was qualified to balance and quantify these relative risks.

GVI/PRMA also criticize Copan's risk adjustments as impermissibly subjective. At the same time, they call his more mathematical analysis "virtually meaningless." The long and short of this challenge is that Copan did not adequately justify the particular numbers into which he translated the various risks faced by the carriers. Copan's discussion of risk does include, however, subjective reasons for each of his risk estimations. J.A. at 756-67. Both the ALJ and the Commission accepted his estimates. In light of Mr. Copan's expert status, this was well within the discretion of the Commission.[39]

GVI/PRMA next argue that the Commission gave insufficient weight to the impact of the rate increases on the ratepayers. The rhetoric of ratemaking has long stated that it encompasses the interests of the ratepayer as well as the regulated industry. *See FPC* v. *Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944) ("a balancing of the investor and the consumer interests"); *Permian Basin Area Rate Cases*, 390 U.S. 747, 792 (1968) ("provide appropriate protection to the relevant public interests, both existing and foreseeable"). Yet it is less often explained exactly to what extent and in what manner this balancing should be accomplished.

In this case, the ALJ extensively examined the evidence of economic impact of higher freight rates on

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[39] GVI/PRMA also argue that the FMC did not adequately explain its acceptance of Copan's calculations. As the Commission points out, however, its decision accepts the conclusion of the ALJ who did discuss his reasons for accepting Copan's estimates over those of the other witnesses. *See* Northeast Broadcasting Co. v. FCC, 400 F.2d 749, 759 (D.C. Cir. 1968) (Commission may adopt ALJ's initial decision).

shippers, carriers and island economics. He concluded, however, that the problems of the protesting witnesses stemmed from many factors and that "even if high ocean freight rates were the main problem affecting them (and this was by no means clearly shown), their testimony would be much more relevant in an individual-commodity rate investigation, not a general-revenue case." I.D. at 88; J.A. at 146. The Commission also considered the impact on the ratepayers, but noted that it could not use economic hardship as an excuse for imposing a confiscatory rate of return. C.D. at 46; J.A. at 46. Unlike the ALJ, it found a tradewide investigation to be the "best vehicle" for considering both the general and specific impact of the rate increases. C.D. at 49; J.A. at 49. Deciding that this impact could best be factored into the award of risk premiums, the Commission concluded that "[t]o reduce business risk premiums on the basis of economic hardship would require a showing of extreme economic dislocation resulting directly from a carrier's rate increases." C.D. at 47; J.A. at 47.

GVI/PRMA argue that this standard is an arbitrary and unreasonable burden. Calling it "draconian," they assert that the standard is virtually impossible to meet within the short period allowed for hearings by the Act. Although we agree that the Commission has placed a heavy burden on the shippers, we do not believe it has transcended its authority in so doing.

In ratemaking, the regulated industry is essentially allowed to recapture its cost of providing service, including the cost of attracting and rewarding capital. Fairness to the ratepayer lies in limiting the rates to that amount which is "sufficient, but no more than clearly sufficient, to cover total cost actually and prudently incurred." J. Bonbright, *Principles of Public Utility Rates* 240 (1961). Any adjustment of the rate below the amount necessary to cover costs not only forces losses on the regulated

industry, but also will lead to a degradation of service in the long run through failure to attract capital.

It is self-evident that higher rates, when combined with other increasing costs, may create serious financial problems for ratepayers. This is especially true of the impact of shipping-rate increases on island economies. It is equally clear, however, that financial impact alone is not enough to justify elevating the ratepayers' concerns over the just demands of the carriers. Certainly where the ratepayers' dilemma is not the direct or exclusive result of the rates under review, the agency cannot ordinarly compensate for external factors by adjusting the rates under review. The effect of such an approach on carriers would be to force them to operate with rates below the amount that had been fixed as necessary to allow them to recoup their expenses. Thus, we find it reasonable that the Commission required any adverse impact to be directly attributable to the rate increase.

Second, because *any* increase in rates will harm the ratepayers to some degree, a showing of mere adverse impact is usually insufficient to warrant special adjustment of rates. The FMC required "extreme economic dislocation," a difficult standard, but one which still allows consideration of extreme hardship cases as a special factor in ratemaking. In other circumstances, the ratepayer may pay what it perceives as high prices, yet these prices are the legitimate cost of providing the service demanded. In the absence of a statutory mandate to force carriers to subsidize shippers, this cost is a reasonable, if painful, result of the realities of the external marketplace.

The current statutory scheme was enacted with these principles in mind. The House committee report on the bill which became the 1978 amendments rejected a suggestion that would have made rate increases more difficult to implement. The committee also rejected a protectionist attitude toward shippers:

> Finally, the main thrust of Mr. de Lugo's amendment is that any rate increase, whether justified or not is a burden on the consuming public. We share that concern, but even more devastating would be the loss or disruption of shipping services to our noncontiguous States and territories. The economic and regulatory environment against which Mr. de Lugo's amendment must be evaluated and found to be unrealistic includes the fact that carriers operating in the domestic offshore trades do so without the usual protection afforded by an operating authority or certificate; consequently, any U.S.-flag carrier can at will enter or depart any of these trades without prior permission. No business can survive if it is to be prevented from adjusting its prices to reflect increases in operating costs over which it has little if any control. And this amendment would increase the financial uncertainty and unnecessary interference in rate adjustments and result in added costs to the consumer. Consequently, no one will be willing to invest substantial amounts of risk capital in modern, more efficient replacement vessels and related shoreside equipment. The ultimate result may well be the eventual bankruptcy of the U.S.-flag domestic ocean fleet. Surrounded by thousands of miles of water on all sides, it is the consumer who will then pay the price if the lifeline to the U.S. mainland is severed.
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> H.R. Rep. No. 1240, 95th Cong., 1st Sess. 7 (1977).

We conclude, therefore, that the FMC's standard for special consideration, "extreme economic dislocation resulting directly from a carrier's rate increases," falls within its discretion and effects a rational result. Any lesser standard would shield the ratepayer from the realistic costs of the services he used. Fairness to the ratepayer is primarily subsumed in the limitation of rates to that amount which clearly covers the proper costs of providing the regulated service.

GVI/PRMA also contend that the risk premium should have been adjusted downward due to price collusion among the carriers. They argue that this collusion lessens the risk faced by each carrier because each is shielded from effective competition. As proof of the price collusion, GVI/PRMA point to the nearly simultaneous and equal rate increases filed by the carriers. The shippers argue that the voluminous support and leadtime necessary to file an increase demonstrates that the carriers must have agreed on the amount of their increases. This leadtime, they submit, is proof that the identical rate increases were not due to price parallelism caused by competition.

The Commission refused to consider the effect of price collusion altogether. "Finally, whatever its merits, the question of price collusion cannot now be considered in this proceeding. It was not included as an issue in the Order of Investigation." C.D. at 51; J.A. at 51. The Commission reasoned that accepting the price collusion argument would require a finding of a violation of antitrust laws, which was beyond Commission authority in the context of the ratemaking proceeding. The Commission also opined that serious notice and due process issues would be raised by considering the collusion issue.[20]

We find that the Commission acted properly. As we have emphasized before, Congress intended hearings under section 845 to be conducted expeditiously. Subsection (a) requires that the FMC publish "the specific issues to be resolved by such hearing," a measure clearly intended both to provide notice to the parties and to restrict the scope of inquiry. Exclusion of a complex issue of tangential importance from a hearing that is statutorily limited in duration is far from arbitrary when other

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[20] In its brief to this court, the FMC adds one additional argument: there was no evidence of collusion on the record. We do not consider this argument in light of our disposition.

fora exist for raising those concerns.[31] Both the House and Senate reports concerning the 1978 Amendments explicitly noted that a finding of reasonableness under section 845 would not preclude a challenge to rates pursuant to other parts of the Act or pursuant to other legal remedies. "For example, a plaintiff in an anti-trust action would not be foreclosed by the just and reasonable language of section [845] from seeking damages from the carrier or carriers on the basis of rates which were deemed to be just and reasonable only for the purposes of section [845]." H.R. Rep. No. 474, 95th Cong., 1st Sess. 8-9 (1977). *See also* S. Rep. No. 1240, 95th Cong., 2d Sess. 14-15 (1978). It was neither arbitrary nor unfair to exclude consideration of antitrust issues from the general rate increase proceeding.

B. *TMT's Burden of Proof*

GVI/PRMA claim that TMT has failed to meet its burden to prove that its rates are just and reasonable, focusing on three expense areas that are alleged to be inadequately explained. They also argue that these items indicate an overall failure by TMT to provide that its rate increase is justified. The ALJ was not satisfied by TMT's presentation regarding these items. He did not approve the rate increase, but he invited TMT to provide further explanation or explication of the record to the Commission. I.D. at 64-70; J.A. at 122-28. The Commission accepted TMT's proof in two of the three areas, based on explanations included in TMT's brief on exceptions. C.D. at 40; J.A. at 40.

The first area concerns additional cargo that TMT expected to gain from GCML's termination of service to

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[31] *But cf.* Conway Corp. v. FPC, 510 F.2d 1264, 1274 (D.C. Cir. 1975), *aff'd*, 426 U.S. 271 (1976) (an agency may consider price-squeeze effects of wholesale and retail rates in setting rates within the "zone of reasonableness"); City of Batavia v. FERC, No. 80-1072, slip op. at 41-42 (D.C. Cir. Feb. 9, 1982) (same).

certain ports. In TMT's original rate increase filing, its expert Baci estimated that it would gain about 100,000 tons of cargo that had formerly been carried by GCML. *See* J.A. at 1004. This was based on receiving 80 percent of 120,000 tons attributable to six specific commodities. Simultaneously, GCML's rate filing indicated its cargo loss would be only 100,000 tons, including the six commodities. See J.A. at 419-27. In TMT's direct case, Baci used only 80,000 tons, without explanation that his earlier figure was in error. *See* J.A. at 647-75. In its brief following the close of the hearing, TMT demonstrated the support on the record for use of the 80,000-ton figure. *See* J.A. at 397-400. The Commission accepted the figure:

> While the Presiding Officer suggested that TMT might, by way of Exceptions to the Initial Decision, correct these deficiencies, it chose not to supplement the record but rather to simply highlight evidence of record which it alleged supports its final figures. As noted above, TMT has shown that GCML will lose 100,000 tons of cargo and not 120,000 tons. Accordingly, the corrected figure of 80,000 tons of additional cargo for TMT which is based upon a loss of 100,000 tons by GCML will be accepted.

C.D. at 40-41; J.A. at 40-41.

We find no error in the Commission's conclusion. Although we do not condone TMT's failure to provide these citations to the record and explanations at an earlier stage of the proceeding, it is clear that the record, taken as a whole, contained "such relevant evidence as a reasonable mind might accept as adequate to support [this] conclusion."[22] We will not second-guess the Commission's findings.

GVI/PRMA also challenge the basis of TMT's projected escalation of operating costs. The Commission ac-

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[22] Consolidated Edison Co. v. NLRB, 305 U.S. 197, 229 (1938). *See also* Trailways, Inc. v. ICC, No. 80-1713, slip op. at 6 (D.C. Cir. March 16, 1982).

cepted TMT's estimates with citation to supporting material in the record. C.D. at 41; J.A. at 41. On review of the relevant portions of the record, we again find that the Commission had adequate support for its conclusion. *See* J.A. at 653-58.

The shippers also claim that TMT "double counted" part of its administrative overhead by including two expenses labelled "supervision" and "management commissions." Both were attributed to the expenses incurred by TMT's parent corporation. *See* J.A. at 657-58. The Commission agreed that TMT had not adequately explained the difference between the two, and it disallowed the "management commissions." C.D. at 41-42; J.A. at 41-52. The gravamen of GVI/PRMA's challenge is that this failure is indicative of an overall failure by TMT to carry its burden of proof. They argue that the three challenged areas establish a pattern of avoiding the issues raised by protestants.

There is no merit in this contention. The Commission gave appropriate consideration to the record in each of these areas and accepted so much of the carrier's submission as it found to be supported by the record. That a different conclusion could have been drawn from this record does not justify second-guessing by this court. The one ruling against the carrier does not mandate that the agency reject its entire submission, even though the ruling was coupled with other issues that may have been close. The FMC considered the evidence presented by TMT; it exercised its judgment based on that record and found that TMT had generally met its burden of proof. We find no basis for disturbing this result.

C. *Consideration of Evidence and Findings*

GVI/PRMA charge that the FMC failed to make findings as to three material issues of fact: PRMSA's revenue projection, the carriers' cost escalation factors, and the

effect of intermodal cargo on PRMSA's cargo projection. They go beyond this to assert that the Commission did not properly consider the evidence before it or indeed consider it at all. We find these contentions to be without merit.

An agency must evaluate the evidence before it and explain the basis for its conclusions. *Saginaw Broadcasting Co.* v. *FCC*, 96 F.2d 554, 559 (D.C. Cir.), *cert. denied*, 305 U.S. 613 (1938); 5 U.S.C. § 557(c). The first two issues above were the subject of extensive submission by the parties. The ALJ essentially accepted the carriers' evidence as most convincing and explained at some length why he did so. *See* I.D. at 56-61, 71-75; J.A. at 114-19, 129-33. The Commission adopted that result. *See* C.D. at 32, 35; J.A. at 32, 35.

It is manifestly appropriate for the Commission to accept the findings of the ALJ. *Northeast Broadcasting Co.* v. *FCC*, 400 F.2d at 749, 759 (D.C. Cir. 1968). It need not repetitively detail the information considered or the ALJ's precise line of reasoning, so long as a reviewing court can clearly perceive that it has adopted the ALJ's analysis and conclusions. Concerning PRMSA's revenue projections, the Commission stated, "The findings of the Presiding Officer as to PRMSA's cargo and revenue projections will be adopted applying his evidentiary 'rule of reason.'" C.D. at 35; J.A. at 35. The Commission also summarized the substance of the ALJ's conclusions. We would be hard put to fashion a more explicit adoption of the ALJ's opinion.

Similarly, the Commission concurred with the ALJ's conclusions on the appropriate inflation factors: "The methodology proposed by Hearing Counsel to determine an appropriate inflation factor to be applied to non-labor and non-fuel expenses, and adopted by the Presiding Officer, appears to be the most reliable method presently available." C.D. at 32; J.A. at 32. The ALJ's opinion is a matter of public record, available to the parties and

to this court. It reflects careful, painstaking consideration of the evidence on the record. The Commission's adoption of the Initial Decision on these points adequately serves the mandate to make findings and explicate the basis therefor. *See Bowman Trans., Inc.*, v. *Arkansas-Best Freight System, Inc.*, 419 U.S. 281, 285-86 (1974).

It is frivolous to contend that the Commission did not consider the evidence because it did not catalogue every jot and tittle of testimony. Nothing is to be gained by a laundry-list recital of all evidence on the record supporting each view on every issue. The ALJ found certain witnesses to be more credible and their testimony to be more reliable; the Commission agreed. We find no indication that reasoned consideration was not given to the record or the arguments of the parties. The Commission has fulfilled its duty to explain its conclusions, and those conclusions are upheld.

The question of intermodal cargo involves a somewhat different issue: the necessity of making findings on all material issues of fact. Intermodal cargo is cargo that moves by both water and land transportation on a single bill of lading. It is not subject to the ratemaking jurisdiction of the FMC,[33] and theoretically it should be excluded in calculating the rate base of these carriers because it is not a portion of the activity regulated. To avoid preoccupation with trifles, however, Commission regulations do not require exclusion of the revenues and costs of such "other cargo" unless it cumulatively exceeds five-percent of gross revenues. *See* 46 C.F.R. § 512.3(j). The evidence indicated that PRMSA's intermodal cargo was 1.05 percent of its total carriage in 1980. *See* J.A. at 983. The ALJ accepted PRMSA's cargo projection and in a footnote rejected the assertion that intermodal cargo was likely to expand to the point where it would need to

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[33] *See* Puerto Rico Maritime Shipping Auth. v. ICC, 645 F.2d 1102 (D.C. Cir. 1981); Trailer Marine Transp. Corp. v. FMC, 602 F.2d 379 (D.C. Cir. 1979).

be accounted for separately. *See* I.D. at 60-61 & n.26; J.A. at 118-19 & n.26. The Commission did not specifically mention intermodal cargo in its decision.

GVI/PRMA seize upon this as evidence that neither the ALJ nor the Commission considered the entire record, noting that the ALJ did not refer to the arguments made by its witnesses. Further, they argue that it constitutes a failure by the Commission to make findings on the material issue of intermodal cargo. First, we note that the primary issue of fact in this hearing is the reasonableness of the proposed rates. Material to that determination is the amount of cargo each carrier is likely to carry. Both the ALJ and the Commission found the BIE's adjustment of PRMSA's projected cargo load to be most persuasive. These decisionmakers need not list every contention made so long as their conclusion and its basis are clear. The ALJ's conclusion was well documented and amply explained, albeit by reference to arguments made in the record, and the Commission adopted this part of the Initial Decision. We see no reason to require the agency to repeat every contention of the parties, especially where the argument accepted is mutually exclusive of the others and the basis for its acceptance is made clear. The findings concerning cargo projections is sufficient to support the ultimate findings in regard to the rate increases. We emphatically reject the argument that the Commission failed to consider "both sides" of the issues because it did not dwell on the evidence it found unpersuasive. The Commission's Order, coupled with the ALJ's opinion, adequately informs us of its findings and its reasoning. In the context of these expedited procedures, we ask no more. Examining this portion of the Commission's opinion, we find it reasonable and adequately supported by the record.

D. *Sea-Land's "Brokerage Payments"*

Finally, GVI/PRMA argue that part of Sea-Land's listed expenses should have been disallowed as unlawful.

FMC regulations require that carriers include in their tariffs any amount paid as compensation to independent ocean freight forwarders. *See* 46 C.F.R. §§ 510.24, 531.5 (b) (viii) (1980). Failure to include those payments in a tariff would make the payments unlawful. Among its test-year administrative and general expenses, Sea-Land included a projected cost of $607,547 in "freight brokerage." GVI/PRMA claimed this to be an unlawful payment because no such freight brokerage was included in Sea-Land's tariffs. Sea-Land responded that it was a sales expense paid not to a licensed freight forwarder but to an independent company retained by Sea-Land to perform its sales functions in Puerto Rico. Sea-Land claimed this amount as an appropriate expense of sales even though it may have been entered under the wrong name. *See* J.A. at 844.

GVI/PRMA state that the ALJ refused to consider the lawfulness of the payments because that had not been listed as an issue in the notice for the hearings. Actually, the ALJ stated he probably could ignore the matter, but it was his opinion that the record was inconclusive as to the question. Further, he noted that even if the expense were not allowed, Sea-Land's return would be within its allowable rate of return. *See* I.D. at 61-62 & n.27; J.A. at 119-20 & n.27. The Commission took a similar approach:

> While there is some question as to the correct label to be placed on these payments, there is no dispute that the payments do reflect expenses incurred in the trade. Nor has it been demonstrated that these payments were in fact unlawful under the Shipping Act, 1916. These payments will be considered as expenses in this proceeding.

C.D. at 38-39; J.A. at 38-39.

GVI/PRMA attack this statement as improperly placing the burden of proof on the shippers. Since the burden of proving that rates are reasonable and just falls on the carrier, the shippers assert that they must also prove

that these payments were not unlawful. This argument fails for two reasons.

First, it is not inconsistent with the carrier's burden of proof to require that a challenger demonstrate the illegality of an expense once the carrier has presented evidence that it was an actual expense with a legitimate purpose. The carrier retains the burden of persuasion; it will not prevail if the evidence is in equipoise. Here, Sea-Land acknowledged that it may have incorrectly classified the expense, but maintained that in reality the amount was properly spent. It explained the payments and the Commission was convinced. In these circumstances, it is reasonable for the agency to require that a protestant present more evidence of unlawfulness than the account title of the expense. We reject GVI/PRMA's attempt to transform the Commission's statement into an assignment of burden of proof. There is every indication throughout the Order that the FMC properly allocated the burden to the carriers. We are unswayed by arguments based on isolated sentences, viewed out of context, that when reasonably examined reveal that the Commission found one side more persuasive than the other.

Second, the only indication on the record that the payments were unlawful is the use of the account "freight brokerage" by Sea-Land in its initial submissions. GVI/PRMA complained that this appeared to be an unlawful payment because it is unmentioned in any tariff. *See Protest of GVI/PRMA*, et al. *and Request for Investigation* 10-11; J.A. at 1008-09. GVI/PRMA point to no other evidence in the record that would tend to show that the payment was improper. On the other hand, Sea-Land explained the nature of the expense in detail. There appears to be, therefore, substantial evidence on the record that the expense was properly included in calculating Sea-Land's allowable rates and little or no evidence that it was unlawful. The Commission's conclusion was supported by the record and was both rational and reasonable. We find no error.

IV. Conclusion

The Federal Maritime Commission has been given the difficult task of accurately and expeditiously reviewing rate increases by carriers in the intercoastal trades. After considering the numerous objections of the parties, we come to the conclusion that the result in this case is a not unreasonable decision finding adequate support in the record. Our examination of the record and the Commission's Order has been greatly influenced by the realities of ratemaking and an awareness of the limits Congress has placed on the time for hearings and deliberation in such matters. While the decision has not always been a paradigm of clarity, we have been able to perceive the reasoning of the Commission, and we have found support in the record adequate to buttress its findings. We are confident that the Commission will, with experience, gain additional facility in the management and resolution of such proceedings. As to this case, however, no contention of the parties warrants reversal of the Commission's decision.

The Order of the Commission is affirmed, and the stay of refunds that we ordered earlier is vacated.

APPENDIX B

SERVED
September 25, 1981
Federal Maritime Commission

FEDERAL MARITIME COMMISSION

Docket No. 81-10

SEA-LAND SERVICE, INC.,
TRAILER MARINE TRANSPORT CORPORATION,
GULF CARIBBEAN MARINE LINES, INC., AND
PUERTO RICO MARITIME SHIPPING AUTHORITY,
PROPOSED GENERAL RATE INCREASES IN THE
PUERTO RICO AND VIRGIN ISLANDS TRADES

ORDER PARTIALLY ADOPTING INITIAL DECISION

This proceeding was instituted by Order of Investigation, served January 29, 1981, to determine the lawfulness of general rate increases filed by Sea-Land Service, Inc. (Sea-Land), Trailer Marine Transport Corporation (TMT), Gulf Caribbean Marine Lines, Inc. (GCML) and Puerto Rico Maritime Shipping Authority (PRMSA) in the Puerto Rico and Virgin Islands domestic offshore trades.[1]

The Government of the Virgin Islands, the Puerto Rico Manufacturers Association (GVI/PRMA), the

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[1] On February 27, 1981 the Commission issued an Order Amending Order of Investigation to include a PRMSA tariff in the proceeding.

Chamber of Commerce of Puerto Rico [2] and the Drug and Toilet Preparation Traffic Conference, Inc. (DTPTC) were named Protestants in the proceeding. The Commission's Bureau of Hearings and Field Operations (Hearing Counsel) was made a party to the proceeding pursuant to Rule 42 of the Commission's Rules of Practice and Procedure (46 C.F.R. 502.42).

On July 20, 1981, Administrative Law Judge Norman D. Kline issued an Initial Decision holding that all the carriers, with the exception of TMT, had adequately established the reasonableness of the proposed rate increases. A final determination of the reasonableness of TMT's rate increases was withheld to allow TMT a further opportunity to justify those rates on exception to the Initial Decision and allow the Commission to determine their reasonableness. Exceptions to the Initial Decision have been filed by GVI/PRMA, DTPTC, PRMSA, Sea-Land and TMT. Replies to Exceptions have been filed by GVI/PRMA, PRMSA, Sea-Land, TMT and Hearing Counsel.

DISCUSSION

Pursuant to the requirements of P.L. 95-475,[3] the Order of Investigation issued by the Commission limited the issues to be determined in this proceeding to the following:

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[2] The Chamber of Commerce of Puerto Rico, although technically a party did not actively participate at any stage of the proceeding.

[3] P.L. 95-475, which became effective January 16, 1979, enacted the most recent amendments to the Intercoastal Shipping Act, 1933 (the Act) (46 U.S.C. 843 *et seq.*). These amendments included, *inter alia*: (a) a definition of "general rate increase" and "general rate decrease" for purposes of the Act; (b) an increase in the advance notice provisions for such rate changes to sixty days; (c) an increase in the Commission's suspension authority of such rate increases to six months; (d) a 180-day limit and 60-day maximum extension on proceedings initiated pursuant to the Act; (e) a requirement that specific reasons for investigation under the Act be included in Orders of Investigation; and (f) refund authority for rate increases investigated but not suspended and subsequently found to be unreasonable.

1. What is an appropriate rate of return for the carriers named as Respondents? In addressing this question consideration should be given to the average rate of return earned by other U.S. corporations and the inherent risks, if any, in operating in the affected trades.

2. Is the methodology used by Respondents in making revenue and cargo volume projections appropriate?

3. Are Respondents' revenue and cargo volume projections sufficiently accurate, and if not, what are the appropriate projections?

4. Have Respondents properly calculated their cost projections covering labor, fuel, vessel maintenance and administrative and general expenses, and, if not, what are the proper calculations?

5. Do the proposed rate increases impose an economic hardship on the affected interests represented by Protestants and Intervenors, and, if so, to what extent should this factor be considered in determining a reasonable rate of return for the carriers?

The February 27, 1981 Order Amending Order of Investigation stated that because of PRMSA's peculiar capital structure,[4] consideration should be given to the fixed charges coverage ratio standard of reasonableness stated in 46 C.F.R. 512.6(d)(3) in determining the reasonableness of its proposed rate increases.

Due to the number of issues and subissues presented, and their complexity, the findings of the Presiding Officer, Exceptions and Replies of the parties and discussion of the issues will be presented according to subject matter. These issues will be treated under three major topics, i.e.

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[4] PRMSA is an instrumentality of the Government of Puerto Rico and as such is 100% debt financed and tax-exempt.

Rate of Return, Revenues and Expenses, and Economic Hardship.[5]

RATE OF RETURN

The Initial Decision

The Presiding Officer explained that an appropriate rate of return for a carrier in the domestic offshore trades requires a determination of: (1) what average rate of return is earned by other U.S. corporations, the so-called "benchmark" rate of return; and (2) whether, in light of the inherent risks facing a carrier in its particular trade, the carrier should be allowed a greater or lesser rate of return than this average in order to put it on a generally equal footing with other industries in its ability to attract investment capital. This is the so-called "comparable earnings test" of reasonableness adopted by the Commission as the standard to be applied to carriers' rates under P.L. 95-475.

In this proceeding each party used a different analysis to arrive at the benchmark rate of return and the particular adjustments that must be made to reflect the peculiar risks faced by each carrier under investigation. After carefully analyzing each proposal the Presiding Officer found that none of them was entirely satisfactory, either because they failed to adhere to the basic requirements of the Commission's regulations in General Order 11 (46 C.F.R. Part 512) (G.O. 11) or because the statistical data bases used were not reliable indices of average rates of return.

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[5] The Presiding Officer devoted a substantial portion of his Initial Decision to a discussion of the overall problems faced by the Commission in general rate investigations under P.L. 95-475 and how the Commission should generally modify its approach to this area of law to make these proceedings more manageable and meaningful. Because this portion of the Initial Decision addresses matters not ordered to be considered and is not necessary for a final disposition of this proceeding it will not be discussed here.

It was determined, however, that although somewhat flawed in one aspect, Hearing Counsel's analysis was the one that could best be utilized in this proceeding, because of its objectivity, adherence to the Commission's regulations and statistical reliability. The reference group of corporations chosen by Hearing Counsel, that of all manufacturing firms, was found to be the one most comparable to the shipping industry and was therefore found to avoid distortions resulting from selecting either a more restricted or wide-ranging group. Also found appropriate was Hearing Counsel's use of the average returns of these corporations from 1974 through 1980 with adjustments for current trends in the cost of money and rates of return. This method was held to yield a more reliable average return because it accounted for the general average of returns over time, thereby eliminating distortions from particular good or bad business years, while at the same time accounting for the cumulative effects of inflation on corporate earnings in the near projected future. In applying this methodology Hearing Counsel arrived at an average rate of return for 1974 through 1980 of 12.5% with an upward adjustment of 2% for current trends* and a reference group rate of return of 14.5% for the projected year at issue. Hearing Counsel then analyzed the business and financial risks of each carrier as it compared to the reference group and concluded that: PRMSA should be awarded a risk premium of 2.5% for a total reasonable rate of return of 17%; Sea-Land should be awarded a risk premium of 1.5% for a total reasonable rate of return of 16%; TMT should be awarded a risk premium of 1.5% for a total reasonable rate of return of 16%; and GCML should be awarded a risk premium of 2.5% for a total reasonable rate of return of 17%.

The Presiding Officer construed the conclusions reached by Hearing Counsel as suggesting that on a trade-wide

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* The 2% upward adjustment for current trends was based upon overall rate of return trends from 1968-1979.

basis a risk premium of 1.5%-2.5% should be awarded and a rate of return "zone of reasonableness" of 16-17% should be established. However, based upon a perceived technical fault in the computations of Hearing Counsel, the Presiding Officer expanded this zone to 16-18%. In computing the reference group's returns, Hearing Counsel had used Federal Trade Commission Quarterly Financial Reports as a data base. In order to utilize the data in computing rates of return according to the formula required by Commission regulation, a long-term debt cost figure had to be computed. This figure does not appear in the FTC-QFR data published and had to be estimated by Hearing Counsel's economic witness, Mr. Jay Copan. Mr. Copan estimated this figure to be 7%. The Presiding Officer found that the record did not indicate how this figure was computed and advised that he felt it was "too low." He accordingly adjusted the range of allowable returns upward by 1%. This, he explained, results in a more reliable range of returns, particularly in view of the testimony of the carriers who proposed much higher ranges and the testimony of GVI/PRMA which proposed a uniform 15% ceiling with no adjustment for risk.

The Presiding Officer also discussed PRMSA's proposals to apply alternatives to the G.O. 11 rate of return formula due to its peculiar capital structure and tax-exempt status. He rejected the use of before-tax figures and the exclusion of non-operating assets to compare PRMSA's rate of return with that of comparable U.S. industries. It was found that true comparability was impossible on this basis and was, in any event, contrary to the requirements of G.O. 11. Moreover, the results using the standard G.O. 11 formula were found not unreasonable and justified the carriers' rates. The Presiding Officer noted that the alternative to the G.O. 11 rate of return formula is the fixed charges coverage ratio referred to in the Order Amending Order of Investiga-

tion. Although Hearing Counsel recommended this as the primary test to be applied to PRMSA, the Presiding Officer found it useful only as a secondary "check" on the results of the rate of return formula which should be "considered." He adopted Hearing Counsel's proposed 1.8-2.0 ratio range of reasonableness although he characterized it as being "too low." PRMSA was found not to have exceeded this range of reasonableness.

Position of the Parties

Exceptions

GVI/PRMA argue that because none of the proposed analyses were accepted by the Presiding Officer, the carriers have not met their burden of proof on the reasonableness of their rate increases. Because all of the analyses were found flawed, none can allegedly support the findings of reasonableness made by the Presiding Officer. Alternatively, they argue that their own rate of return analysis, which excluded the use of risk premiums after arriving at a benchmark rate of return, is most reliable and reveals the unreasonableness of the rate increases. It is further argued that because no combination of subjective/statistical measures of risk can support the risk premiums awarded the carriers, the Presiding Officer erred in relying upon a presumption of risk to find the rates of return of the carriers reasonable. GVI/PRMA submit that the carriers are entitled only to cover their costs of services, including a reasonable cost of capital. On this basis, it is concluded that the carriers are entitled to no more than a 15% rate of return on total capital.

DTPTC argues that the burden of proof in the proceeding was erroneously assigned to the Protestants. Further, it is argued that the Presiding Officer allowed unprecedented rates of return to be enjoyed by the carriers based primarily on the poor historical earnings and

his reluctance to order refunds. DTPTC submits that the carriers will be realizing profits akin to a highly profitable enterprise or a speculative venture, a result that is completely contrary to regulatory principles.

PRMSA takes exception to the Presiding Officer's rejection of its proposed range of reasonableness of 19-20% for its rate of return. It is argued that in arriving at a benchmark rate of return of the comparable industries reference group, the reported total capital of these firms should not be used. PRMSA maintains that the proper computation of the reference group total capital should be net fixed assets plus working capital (computed as current assets minus current liabilities). Moreover, it is pointed out that the use of manufacturing firms as a reference group excludes mining and trading companies, which are high-profit enterprises, and their exclusion depresses the benchmark return. Finally, it is argued that before-tax rate of return figures should have been used to test the reasonableness of PRMSA's rate of return because this is the only method by which its tax-exempt status can be adequately considered.

Sea-Land excepts to the refusal of the Presiding Officer to allow it a risk premium above the otherwise reasonable limit on its rate of return to account for historical shortfalls in its rate of return.

Replies

GVI/PRMA argue that Sea-Land cannot be awarded risk premiums to compensate for past shortfalls in earnings, because this would violate the legal prohibition against allowing a carrier excess profits in the future to compensate for past losses. They also argue that PRMSA's Exceptions should be rejected on the grounds that PRMSA has already been allowed a rate of return that is greater than any previously allowed by the Commission and that it is attempting to reap excessive profits.

TMT's Reply finds the rate of return determinations of the Initial Decision acceptable. GVI/PRMA's refusal to consider risk premiums is allegedly based upon a cost of capital approach which is contrary to G.O. 11.

PRMSA's Reply also supports the Presiding Officer's zone of reasonableness and his risk premiums findings. PRMSA points out that both statistical and subjective studies were utilized to support the Presiding Officer's determinations and it was proper for him to reject a cost of capital approach as contrary to G.O. 11. PRMSA denies that its 100% debt financing reduces its business risk.

Sea-Land's Reply challenges the allegation that none of the rate of return testimony was accepted by the Presiding Officer, pointing out that its testimony was accepted with the exception of the premiums for past shortfalls.

Hearing Counsel contends that the Presiding Officer was correct in rejecting the alternative rate of return analyses proffered. Hearing Counsel submit that the comparable earnings test of reasonableness based upon an examination of rates of return on total capital is not only appropriate but required by Commission regulations and the award of risk premiums is warranted to the extent the carrier's risk exceeds that of the reference group. However, it is alleged that the interest expense estimated by Mr. Copan is reasonable in light of the time frame of earnings examined. Hearing Counsel submit that the computation of a rate of return on total capital advanced by PRMSA was properly rejected. The Commission is urged to assert that no rate of return premium can be awarded carriers because of past shortfalls in profit projections as past losses cannot be used to justify future excess earnings.

Conclusion

In light of the evidence of record, the Presiding Officer was correct in relying chiefly upon the presentation of Hearing Counsel in determining what is an appropriate

rate of return for the carriers included in this proceeding. The two reasons advanced for this decision by the Presiding Officer are sound and support the result reached.

First, Hearing Counsel's analysis is most objective. Ordinarily, the fact that a party in interest has tendered an analysis does not automatically disqualify that analysis on the grounds of bias. However, bias is properly a factor to be considered in determining the weight to be accorded any testimony. In this proceeding an evaluation of the disparities in methodology utilized by the various parties resulted, in each instance, in rates of return markedly favorable to the ultimate position of the party advancing such methodology. Satisfactory justification for these novel methodology approaches was not supplied. As examples, Dr. Ileo, DTPTC's witness, used an extremely narrow data base and very selective risk factors to achieve a maximum rate of return below that which all of the other witnesses agree is the average current return for U.S. businesses.[7] Dr. Nadel, testifying for TMT, GCML and Sea-Land, although possibly accurate as to his computation of past average returns for U.S. corporations, uses these findings to predict what appears to be unreasonable levels of returns in the test year.[8]

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[7] Although Dr. Ileo surveyed rates of return from 1976-1980, he ultimately based his rate of return findings only on the results of 1980. (Ileo Testimony at 7). His risks differential was based solely upon the difference in the imbedded debt cost of PRMSA and that of the average U.S. manufacturing firm. (Ileo Testimony at 10).

[8] In addition to projecting a comparatively high 18.5% average rate of return for 1981, Dr. Nadel proposed a 2% premium as a "desirable target" for TMT, GCML and Sea-Land and an additional 3% premium in light of past shortfalls in achieving the maximum permissible rates of return for these carriers. (Nadel Testimony at 38). Dr. Nadel bases his benchmark rate of return on specific companies selected under restrictive and subjective criteria (Nadel Testimony at 18), and projects a 1981 average by attempting to establish a correlation with Aaa bond yield trends using regression analysis (Nadel Testimony at 23). His 2% premium is based upon an assumption that the actual average rates of return in the 1970's did not achieve "desirable" levels. This conclusion is again based

Second, Hearing Counsel's witness, Mr. Copan, adhered closely to the requirements of G.O. 11. P.L. 95-475, pursuant to which this proceeding was undertaken, requires the Commission by regulation to prescribe the method by which a carrier's rate of return will be evaluated for reasonableness (46 U.S.C. 845(a)). G.O. 11, as recently revised, represents the Commission's compliance with this legislative mandate.[9] Adherence to G.O. 11 therefore is essential. Departures from its requirements cannot generally be permitted in rate proceedings if the regulation is to fulfill its statutory purpose. The alternative "middle ground" analyses in this proceeding, to some degree depart from the requirements of G.O. 11. Dr. Germaine, for TMT and GCML, utilizes a cost-of-capital analysis in crucial portions of his presentation, a method specifically rejected by the Commission in its promulgation of G.O. 11.[10]

The same infirmity applies to the testimony of Dr. Brennan, testifying for GVI/PRMA.[11] Dr. Silberman, sponsored by PRMSA, substituted the G.O. 11 formula for computing a rate of return based upon total capital with one which computes a rate of return on selected assets.[12] While these analyses are subject to other de-

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upon an assumed correlation with Aaa bond yields. (Nadel Testimony at 26). Dr. Nadel's 3% premium to account for past shortfalls in the carriers' rates of return is an overadjustment above any reasonable maximum level of return. (Nadel Testimony at 29-30). Allowing a carrier to achieve an unreasonably high rate of return to compensate it for past shortfalls in earnings is impermissible in rate regulation. *Galveston Elec. Co. v. Galveston*, 258 U.S. 388, 395 (1922). This rule of law is not unfair to the carrier in light of the fact that confiscatory rates cannot be established on the basis of the carriers' past actual profits. *Board of Public Utility Commissioners v. N.Y. Telephone Company*, 271 U.S. 23 (1926).

[9] See, *Financial Reports of Common Carriers in the Domestic Offshore Trades*, FMC Docket No. 78-46, 19 S.R.R. 1283 (1980).

[10] See, Germaine Testimony at 18.

[11] See, Brennen Testimony at 5.

[12] See, Silberman Testimony at 6, Silberman Rebuttal Testimony at 13-14.

ficiencies, the failure to follow the requirements of G.O. 11 precludes any reliance upon them.

The Presiding Officer, however, did not accept Mr. Copan's estimated imbedded debt cost figure utilized to compute the benchmark rate of return for U.S. manufacturing firms. Mr. Copan used a 7% estimated interest figure which he derived from his primary data base, FTC Quarterly Reports. While certain adjustments to Mr. Capan's conclusions are warranted based on certain policy considerations discussed below, the Commission does not share the Presiding Officer's skepticism regarding the imbedded debt cost.

The bases cited for the Presiding Officer's belief that the 7% interest figure was "too low" were the current cost of money, the estimate of Dr. Ileo and the arguments of PRMSA in its brief.[13] The figure used by Mr. Copan was not intended to reflect the current cost of money but the average interest costs of U.S. manufacturing firms from 1968-1979.[14] It is certainly beyond dispute that average interest rates were lower during that period of time than they are today. Mr. Copan adjusted his rate of return results for current trends in the cost of money by 2%, thereby compensating for any potential distortion. Dr. Ileo's 9.5% interest estimate was applicable *only* to 1980[15] and this supports rather than undermines Mr. Copan's estimate of a significantly lower rate for an earlier period. Finally, assertions of PRMSA's counsel on brief do not alone impeach the otherwise reliable expert opinion of Mr. Copan.[16] There-

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[13] See, I.D. at 38.

[14] See, Copan Testimony at 8.

[15] See, Ileo Testimony at 7, Table IV.

[16] Even as an "unexplained" expert opinion, it is entitled to more weight than the *argument* of a party in interest on brief. See 7 Wigmore on Evidence § 1922, 1933 (Chadbourn rev. 1978); *Franklin Supply Co. v. Tolman*, 454 F.2d 1059, 1071 (9th Cir. 1972).

fore, the benchmark rate of return computed by Mr. Copan, 14.5%, is the most, and possibly the only, reliable testimony on the rate of return issue in the record.

The determination of a reasonable rate of return, however, does not stop with a determination of what U.S. corporations earn generally. Consideration must be given to the peculiar risks faced by the carriers in this trade. While it is true that there is no presumption of risk, consideration of this factor must be given if the comparable earnings test is to fulfill the requirement that the carriers are to be allowed sufficient earnings to attract necessary capital and compensate investors for the risks they have assumed.[17]

The question remains, however, as to how risk is to be considered in this proceeding. The threshold issue, and one not answered by the Presiding Officer, is whether consideration is to be given to the risks faced by each *individual* carrier or the risks faced *generally* by carriers operating in the trade. Stated another way, should the Commission establish a maximum rate of return for each individual carrier or a trade-wide maximum rate of return? Hearing Counsel and the carriers would take into account the individual financial and business risk of each carrier. GVI/PRMA advance a trade-wide rate of return and the Presiding Officer constructs a "zone of reasonableness" within which all the carriers' rates of return must fall.[18]

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[17] See *Permian Basin Area Rate Cases*, 390 U.S. 747, 791-792 (1968). The use of an average U.S. corporate rate of return as a "benchmark" necessarily requires a determination of whether the carriers display different risk characteristics than the average firm. The alternative approach, that of eliminating risk premiums or discounts by carefully selecting highly comparable firms (including comparable risk) to arrive at a benchmark return, is not consistent with the approach prescribed by the Commission in G.O. 11. See, 46 C.F.R. 512.6(d)(2)(ii).

[18] The "zone of reasonableness" as that term has been defined by the Supreme Court is that area between minimum nonconfiscatory

The factors militating in favor of an individualized approach are: (a) it ensures that full consideration is given to the question of the risks assumed by the investors in each carrier, and (b) it is susceptible to a greater degree of precision in measurement due to the narrower focus of the inquiry. The factors militating against an individualized approach are: (a) it discourages efficiency of operation and in effect rewards past faulty management decisions;[19] and (b) it necessarily requires an analysis of each carrier's debt-equity ratio, a difficult and unreliable procedure which the Commission sought to avoid by adopting the rate of return on rate base test and rejecting the rate of return on equity test of reasonableness.[20] Each of these considerations operates in an opposing manner when used in evaluating the desirability of establishing a trade-wide maximum rate of return.[21]

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rates and the maximum reasonable level of rates. *FPC v. Natural Gas Pipeline Co.*, 315 U.S. 575, 585 (1942). As used by the Presiding Officer, however, the "zone of reasonableness" is simply a range of the maximum rates of return applicable for the particular carriers surveyed. To allow a zone of 16-18% is just another way of establishing an 18% maximum rate of return for the carriers.

[19] Establishing rates of return on the basis of individualized financial structures and earnings variations takes these factors as a "given" and allows carriers who have high risk financial structures, high comparative costs and erratic earnings histories to be allowed a higher overall return than a carrier who has a conservative financial structure, low comparative costs and a stable earnings history.

[20] See Docket No. 78-46, *supra*, 19 S.R.R. at 1308-1309.

[21] Trade-wide maximum rates of return would establish an average rate of return in light of the individual carrier rates of return. This admittedly does not take into account individual investor's risks but only an average investor's risks and is essentially an estimate of what the average carrier in the trade "should" earn, in light of the condition of *all* the carriers. While it does assume the theoretical existence of an "average" carrier, the trade-wide approach does allow for more competition by permitting a carrier to reap rewards for its efficiency and preventing a carrier a higher return because of its inefficiency.

A third "compromise," approach would give carriers individualized treatment in terms of the business risks they face in the trade but give no consideration to the individualized financial risks assumed by each carrier's financial structure. Business risk is an objective factor based upon earnings variations resulting from, to the most part, external market forces over which the carrier has little, if any, control.[23] Financial risk is a more subjective factor. It is based upon the potential of variations on earnings to *equity holders* due to the *internal financing structure* of the carrier which, to a very large degree is the result of the carrier's *own business judgments.*[25] The advantages of this approach are that: (a) it avoids the problem of attempting to establish each carrier's debt-equity ratio;[24] (b) it eliminates the apparent inconsistency with G.O. 11; (c) it considers the risks assumed by investors;[25] and (d) it encourages efficiency of operation.[26]

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[22] See Copan Testimony at 13.

[23] See Copan Testimony at 11.

[24] The reason rate of return on equity was rejected by the Commission in its recent revision of G.O. 11 was primarily due to the difficulty of establishing debt/equity ratios of carriers which are subsidiaries of a large corporate entity. This problem is revealed in this proceeding where the difference in rates of return allowed the carriers results in large part from differences in financial risk. Two of the four carriers were not awarded financial risks premiums because their debt/equity ratios could not be determined. See Copan's Testimony at 18-20.

[25] Under this approach, consideration is given to the individual market risks faced by each carrier. Also, because the Commission only determines the reasonableness of the return on *rate base* the carrier is free to increase its return on *equity* by means of financial leverage. Accordingly, the carrier who assumes the additional risk of financial leverage will necessarily be compensated for this factor without an upward adjustment of its return on rate base.

[26] Large variances in maximum permissible returns based on financing structures will be moderated, encouraging carriers to

Because this third approach eliminates the inconsistencies inherent in awarding financial risk premiums and permits individual consideration of the business risks faced by each carrier in the trade, it is the one which appears most appropriate under the circumstances of this case.[27] Accordingly, it will be adopted here. Applying this approach and giving individualized treatment for each carrier's business risk but eliminating consideration of financial risks, the maximum reasonable rates of return for each carrier are: (a) 16.5% for GCML;[28] (b) 15.5% for TMT;[29] (c) 16% for Sea-Land; and (d) 17% for PRMSA.[30]

The Commission will now consider the fixed charges coverage ratio as an alternative standard for measuring the reasonableness of PRMSA's rates. Hearing Coun-

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achieve higher earnings through a reduction of costs rather than increasing leverage.

The Commission is not unmindful of disadvantages of this approach. First, it imputes to each carrier a debt-equity ratio comparable to that of the average U.S. corporation. This is because financial risk premiums are based upon a determination of a higher degree of leverage than the average U.S. firm. Second, it does to some degree allow premiums to be awarded on the basis of potential past faulty management decisions. Carriers would still be allowed business risk premiums due to variations in earnings which may have in part resulted from poor marketing decisions. However, these disadvantages are clearly outweighed by the advantages stated above.

[27] Vice Chairman Moakley agrees with the majority decision to exclude financial risk premiums in this proceeding but solely on the basis of the economic hardship shown by Protestants. *See* Concurring Opinion of Vice Chairman Moakley.

[28] This would eliminate the .5% financial risk premium for this carrier included in the rate of return found appropriate by Mr. Copan.

[29] See footnote 28.

[30] Because neither Sea-Land nor PRMSA were awarded any financial risk premium, no change in their rates of return would result.

sel's suggestion that the fixed charges coverage ratio be used as the primary test of reasonableness of PRMSA's rates is contrary to the requirements of G.O. 11 which clearly contemplates the use of this standard only when the rate of return on rate base test produces unreasonable results.[31] Under any of the above rate of return analyses PRMSA is entitled to the highest rate of return in the trade and will obtain a significant margin of net profit over and above all operating costs and debt maintenance. Accordingly, it does not appear that in this case the results of the rate of return analysis are unreasonable regardless of the theoretical problems presented by its application to PRMSA. The fixed charges coverage ratio utilized by Hearing Counsel of 1.8-2.0,[32] is a useful check on the results of the rate of return analysis and should be utilized whenever PRMSA rates are examined. However, this case does not present any compelling reason for replacing the rate of return standard as the primary test for all cases involving PRMSA.

REVENUES AND EXPENSES

The Initial Decision

The major issues addressed in the Initial Decision, concerning revenues and expenses of the carriers, centered around the proper methodology to be applied in estimating the cargo tonnage to be carried in the test year, the adjustment for inflation in the carrier's cost projections (excluding labor[33] and fuel), and the projected

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[31] 46 C.F.R. 512.6(d)(1); Docket No. 78-46, *supra*, 19 S.R.R. at 1310.

[32] The fixed charges coverage ratio is designed to evaluate the carriers' ability to cover all fixed charges and ability to take on additional debt. Copan Testimony at 27, 32. The times interest earned ratio also presented by Hearing Counsel is a simpler form of the fixed charges coverage ratio, see Copan Testimony at 33, but is not recognized as a test of reasonableness in G.O. 11.

[33] Although noted as an issue in the Order of Investigation there was virtually no disagreement with the carriers' projected labor costs, these being determined by negotiated contracts. I.D. at 71.

cost of fuel for the test year. Also, there were disputes over particular administrative and general expenses of the carriers.

The basic methodology utilized by PRMSA in projecting tonnage for the test year was accepted by the Presiding Officer with some exceptions. PRMSA utilized a marketing survey approach with adjustments for major plant openings and closings in its targeted markets. The Presiding Officer rejected as too speculative the proposed modifications to these figures which the carrier had estimated would result from the effects of the Federal budget cuts on the economy of Puerto Rico.

PRMSA also requested that its original projections be modified to reflect the effects of the late delivery of one of its vessels, the PONCE. The Presiding Officer held that although modifications to the carrier's original projections based upon actual operating results obtained during the course of a rate proceeding are not normally allowed, where subsequent events render those projections unreasonable and the modifications are not subject to reasonable dispute, they would be allowed. Accordingly, he accepted the reduction in projected tonnage resulting from the delay in the delivery of the PONCE.

A major dispute arose between PRMSA and GVI/PRMA as to the inflation factor to be applied to cost projections, other than for labor and fuel, which is the subject of a separate dispute. All parties submitted their own inflation factor calculations and the Presiding Officer found that the one proposed by Hearing Counsel was the most reliable. Hearing Counsel proposed a 10.4% annual inflation factor, utilizing the Producer Price Index For Industrial Commodities Less Fuels and Related Products and Power, as forecasted by Data Resources, Inc., a major independent forecasting service. Although no other party used this index it was held to be the most reliable because it was the one that came the closest to the "ideal" index that should be used for

ocean carriers, *i.e.* the Producer Price Index For Finished Goods Less Food and Fuels, which is not published. Although PRMSA used a different index, its results closely approximated Hearing Counsel's and its inflation adjustment was accepted. GVI/PRMA's analysis which resulted in an inflation factor of 7.2% was rejected because it relied primarily on a subjective trend line analysis held to be overly simplistic.

PRMSA's fuel cost projections were based upon a forecast of Average Refiners Acquisition Domestic (ARAD) prices by Data Resources, Inc., the same independent forecasting service relied upon by Hearing Counsel in computing the inflation factor. GVI/PRMA challenge this projection on the basis that current events indicate that data used by PRMSA in its projections are no longer valid and that revised forecasts published since the proceeding was instituted should be utilized. The Presiding Officer found that GVI/PRMA's calculations were unreliable because they resulted from a combination of faulty techniques and an overreliance on the long-term effects of the recent "oil glut" and OPEC policies. The Presiding Officer held that although recent events indicate the risks inherent in making any attempt to accurately predict the cost of fuel for carriers, those proposed by PRMSA appeared reasonable and had not been successfully challenged by Protestants.

The Presiding Officer found that the results of PRMSA's revenue and expense projections indicated that if the late delivery of the PONCE were to be considered it would realize a 16.95% rate of return with adjustments and a 17.41% rate of return without adjustments for the late delivery of that vessel. Either of these rate of return figures were held to be within the zone of reasonableness established by the upward adjustment of Hearing Counsel's figures.

Sea-Land's cargo projections were based upon an internal marketing staff report which in turn was ad-

justed by management to account for specific company marketing goals. The Presiding Officer accepted this methodology as reasonably reliable but rejected a projection of a loss of 2,723 containers in the North Atlantic segment of the trade. This tonnage reduction was attacked by both Hearing Counsel and GVI/PRMA on the ground that it presumed that an increase in available carrying capacity of its competitors would result in a loss of tonnage for Sea-Land. This presumption was held by the Presiding Officer to be unsupportable on the record and accordingly the 2,723 containers were included in Sea-Land's projections. With this adjustment, Sea-Land's rate of return was determined to be 16.28%.

The Presiding Officer also found, however, that Sea-Land had underestimated its inflation factor, utilizing a 9.3% annualized rate. Upon the suggestion of Hearing Counsel, this was raised to 9.9%. Utilizing this inflation factor in computing Sea-Land's expenses, the Presiding Officer concluded that Sea-Land's rate of return would be 16.04%, again within the zone of reasonableness.

TMT and GCML utilized the same basic methodology in predicting cargo for the test year, a straight trend line analysis adjusted for anticipated unusual changes in its targeted markets. No party took issue with GCML's prediction of a drastic reduction in tonnage due to an overall reduction in its services. Although no formal findings were made as to GCML's rate of return, the Presiding Officer apparently adopted its projected 16.1% rate of return and found this to be within the zone of reasonableness.

With regard to the projections of TMT, the Presiding Officer found that in the absence of further explanations, it had not satisfied its burden of proof as to the reasonableness of those projections and its rate increases. The essential issue concerned the amount of GCML cargo that TMT would capture in the trade. The Presiding

Officer found that although it appeared that GCML would lose 120,000 tons of cargo in the test year, it was not clear whether TMT would pick up 80,000 or 100,000 tons of this amount. Because this would make a difference of $1.2 million in TMT's revenue, it was determined to be significant enough to require further elucidation. The Presiding Officer advised that TMT would have an opportunity to clarify this matter on exceptions to the Commission.

TMT applied a straight 10% annualized inflation factor in projecting its expenses which was found to be reasonable and there was no challenge to its fuel cost estimates. However, the Presiding Officer found that TMT had not adequately explained what appeared to be a double counting for management commissions and supervision fees to Crowley Maritime Corporation (CMC), TMT's parent company. Also, it was noted that GVI/PRMA's contentions concerning the application of inflation factor to unidentified expense items and a $7.4 million overestimate of rate base were not adequately explained. No findings of TMT's rate of return were made in light of these deficiencies.

Position of the Parties

Exceptions

GVI/PRMA excepted to the refusal of the Presiding Officer to allow revisions to the submissions of PRMSA based upon actual operating results obtained since the institution of the proceeding. It argues that it is inconsistent to allow the carriers to amend their submissions when it is in their interests, citing the late delivery of the PONCE, but refuse to allow consideration of current events when it undermines some of the carriers' projections. Also, it is argued that PRMSA's methodology in using a market survey which indicates a general market decline and then reducing this forecast even further with specific plant closings results in a double counting of the market decline.

GVI/PRMA also challenge the use of the various inflation factor indexes selected by the Presiding Officer and the carriers because they all to some degree include the increases in the price of food and fuel which were recognized to result in upward distortions of the indexes. Moreover, the index for fuel costs used in the Initial Decision allegedly does not account for the recent drastic and unforeseen developments in the world oil market. It is noted that even the independent service relied upon in the Initial Decision has recently amended its forecast data and these data indicate that fuel costs could not possibly increase to the level predicted by the carriers.

GVI/PRMA maintain that TMT should not only have been found to have failed to carry its burden of proof but that it should not have been given the opportunity to supplement its case on exception to the Commission. It is argued that this procedure is contrary to the intent of P.L. 95-475, inconsistent with the Administrative Procedure Act and Commission regulations, and most important, violates Protestants' due process rights. Finally, GVI/PRMA submit that it was error for the Presiding Officer to fail to reduce Sea-Land's expenses by the amount of brokerage payments which are not provided for in its tariffs, such payments allegedly being illegal.

DTPTC excepts to PRMSA's amendment of its submissions to account for the late delivery of the PONCE. It also argues that it is unfair and inconsistent to refuse to amend the carrier's fuel cost projections in light of the indisputable change in circumstances in the world oil market and forecasted prices for the test year.

TMT excepts to the Presiding Officer's finding that it failed to fulfill its burden of proof. It is argued that simply because it did not rebut each and every assertion of Protestants does not mean that it has failed to submit sufficient evidence to prove the reasonableness of its rates. TMT maintains that the Presiding Officer erred in not

examining the record to find this evidence. TMT argues that the record of the proceeding includes adequate explanations rebutting every allegation of the Protestants and that excerpts of its workpapers which it appended to its Exceptions reveal that it has sustained its burden of proof in this proceeding. TMT argues that the amount of cargo it obtained from the reduction of GCML's service is shown to be 80,000 tons and that the 100,000 ton figure originally stated was erroneous and was adequately explained by both its witnesses and Hearing Counsel's witness. Even with the additional 20,000 tons, TMT explains that its rate of return would only be 14.43%, which is reasonable. TMT also takes issue with the finding of double counting of payments to its parent corporation. It explains that the figures do not reflect payments but merely an allocation of expenses, one being an allocation of CMC's Caribbean Division office expenses and the other being an allocation of CMC's home office expenses. As to the impact of the double counting error on its rate base, TMT states that its only mistake was detected early in the proceeding and corrected, and, that in any event, because its rate base figures were not expressly made an issue in the proceeding, its rates may not now be found to be unreasonable on this basis.

Sea-Land excepts to the rejection of its projected decline in tonnage in the North Atlantic segment of the trade, arguing that it is entirely reasonable for it to project a loss of tonnage when new and competitive vessels of its chief competitor, PRMSA, will be coming on line during the test year.

Replies

GVI/PRMA do not believe that the information provided in TMT's Exceptions rehabilitate its case and therefore maintains that TMT has still failed to sustain its burden of proof in the proceeding. The "error" in its cargo forecast has allegedly not been sufficiently explained and what explanation was provided is seen as

self-serving. GVI/PRMA submit that TMT's supervision fees/management commission allocation argument does not refute the apparent double counting of expenses. GVI/PRMA argue that even if TMT's rate base was not expressly put at issue in this proceeding, the significant discrepancy in its submissions reveals the inherent unreliability of all of the carrier's projections and justification of its rates. The inflation factor application explanations of TMT are alleged to be insufficient and inconsistent. Finally, GVI/PRMA maintain that TMT's workpapers do not contain all of the information cited in TMT's Exceptions and that the additional information cannot now be considered by the Commission.

TMT argues that contrary to the assertions of the Protestants, it has met its burden of proof on the basis of the existing record. It submits that its tonnage figures were adequately explained in its Exceptions, using the record developed, and that in any event the error is inconsequential. TMT also repeats its argument that the supervision fees and management commissions are separate expenses and are not payments to its parent corporation. Protestants' attempts to require reductions of fuel costs and general inflation factors on the basis of events subsequent to the institution of the proceeding are argued to be impermissible hindsight contentions which were properly rejected by the Presiding Officer.

PRMSA argues that the evidentiary ruling of the Presiding Officer preventing the consideration of events subsequent to the institution of the proceeding was proper and did not violate the due process rights of the Protestants. PRMSA also insists that there was no double count of plant closings in its cargo forecasts because its market survey took this into account. PRMSA views Protestants' trend line analysis, to arrive at an inflation factor, as unreliable and subjective. The independent service used in the Initial Decision is supported as being both objective and historically reliable. PRMSA opposes the Protestants' attempt to submit evidence as to fuel cost projections after the institution of the proceeding on the basis

that P.L. 95-475 requires that there be some limitation on the submission of testimony and evidence in order to expeditiously dispose of rate proceedings.

Finally, PRMSA supports TMT on the burden of proof issue. It argues that TMT has in fact adequately clarified the record. PRMSA would also have the Commission keep in mind the impact that a rollback of TMT's rates would have on PRMSA, who is said to have clearly justified its rate increase.

Sea-Land submits that its brokerage expense was a sales commission to its Puerto Rican subsidiary and is a lawful and proper expense. The problem with the payment allegedly was not as to its accuracy or propriety, but rather its classification.

Hearing Counsel's Replies to Exceptions are intended to clarify its position on the issues now before the Commission. The "rule of reason" standard, for the use of actual operational data advanced in the Initial Decision, does not go as far as Hearing Counsel originally desired, but is deemed acceptable for the purpose of expediting rate proceedings. Hearing Counsel admit that in applying this standard the Presiding Officer was correct in allowing PRMSA to adjust its projections due to the late delivery of the PONCE and refusing to allow the Protestants to reduce the carriers' fuel cost projections on the basis of the recent OPEC oil price freeze. Hearing Counsel believe that the Presiding Officer was correct in rejecting Sea-Land's projected decline in tonnage in the North Atlantic segment of its service because this reduction is inconsistent with gains projected in other segments of the trade.

Conclusion

Before contentions concerning the individual revenue and expense projections of the carriers can be addressed, certain general matters affecting all of the carriers projections must first be discussed. These are: (a) the acceptance or rejection of actual operating results obtained after the commencement of the proceeding; (b) the ap-

propriate methodology to be applied to arrive at an inflation factor for all non-labor and non-fuel expenses; and (c) the appropriate methodology to be applied to arrive at a predicted average cost of fuel for the test year.

The Commission finds that actual operating results should not be accepted unless they are based upon changes in circumstances so significant and certain as to render the original projections substantially unreliable.[84] This standard approximates the Presiding Officer's "rule of reason."

It is particularly important that parties not be permitted to supplement their cases after the close of the record and after an Initial Decision is issued, as both Hearing Counsel and TMT were urged to do by the Presiding Officer. The procedure suggested by the Presiding Officer is of questionable validity under the Administrative Procedure Act, the Commission's regulations, and the strict procedural requirements of P.L. 95-475. And, as was noted in the Commission's Order Denying Petition to Reopen the Record, issued August 14, 1981, aside from all other questions of the legality of such a procedure, it is practically inappropriate under the time limitations of P.L. 95-475.

The methodology proposed by Hearing Counsel to determine an appropriate inflation factor to be applied to non-labor and non-fuel expenses, and adopted by the Presiding Officer, appears to be the most reliable method presently available. A close relationship was established between the index selected, Producer Price Index for Industrial Commodities Less Fuel and Related Products, and the

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[84] *See, TMT Corp.—General Increase in Rates*, 18 S.R.R. 1374, 1375, n. 4 (1978); Docket No. 75-57, *Matson Navigation Company—Rate Increases*, 18 S.R.R. 1441, 1444 (1978). This standard has also been applied in cases arising after the enactment of P.L. 95-475. *See, Matson Navigation Company—Bunker Surcharge*, 19 S.R.R. 1065, 1067 (1979). *See also Villages of Chatham and Riverton, Illinois v. F.E.R.C.*, No. 80-1826, Slip Op. at 11 (D.C. Cir. August 11, 1981).

types of costs incurred by the carriers. The index is published by a recognized independent forecasting service and provides a sufficiently reliable [index] as a check on the propriety of the carrier's projections.

As for fuel cost projections under current economic conditions, the Presiding Officer may be correct in noting that no one, not even respected independent forecasting services, can predict the cost of fuel over the next year with any precision or certainty. However, in comparison with PRMSA, which forecasted very substantial increases in its average fuel cost for the test year, all the other carrier parties to the proceeding entered relatively conservative estimates of fuel cost increases.[35] Although the ARAD forecasts used by PRMSA may have been based upon the most reliable information available at the time they were published, dramatic changes in world oil markets have caused these forecasts to change substantially since the initiation of the proceeding. Also, valid criticisms as to the appropriateness of the method by which PRMSA has applied these forecasts have been offered by Protestants.

The point is made that if subsequent events justify allowing PRMSA to alter its data on the basis of the late delivery of the PONCE, the same treatment should be given fuel costs which have a much more significant impact on the carrier's projections. Theoretically, therefore, updated projections based upon the ARAD forecasts should be included in the carrier's cost projections. However, there are no reliable applications of the data to be found in the record. The methodology of GVI/PRMA was suc-

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[35] Sea-Land predicts an average cost of fuel for the test year of $29.69 per barrel. Zito Testimony at 7. TMT and GCML predict its prices to range from $.85/gallon to $1.02/gallon for an average cost of fuel for the test year of $.935/gallon or $29.45 per barrel. Farmer Testimony at 7, Andic Testimony at 26, n. 5. PRMSA predicts an average cost of fuel for the test year of $35.98 per barrel. Vasques Testimony at 5.

cessfully shown to be unacceptable.[30] PRMSA's methodology is also very tenuous.

If PRMSA had established a direct relationship between its costs and ARAD forecasts, its data might be acceptable. However, only a theoretical statistical correlation has been shown. As explained by PRMSA's witness, Dr. Vasquez, the relationship is based upon a correlation coefficient which in turn is not based upon actual PRMSA prices but an extrapolation (linear least square fit) of only 1980 PRMSA fuel costs. The reason given for the use of extrapolated figures as opposed to actual figures before 1980 is that "there was a change in the pattern of bunker fuel versus ARAD." Essentially what this means is that the pre-1980 actual data was not used because it did not fit PRMSA's model. This undermines the efficacy of PRMSA's forecast technique. These deficiencies (a questionable correlation, the marked changes in circumstances, and the inconsistency with the other carriers' projections) would ordinarily warrant disapproval of PRMSA's forecast. However, in this case there is simply no alternative forecast data which can be applied to PRMSA. Therefore, the Commission basically has three options: (1) adopt the Presiding Officer's findings due to a lack of an alternative forecast; (2) find that PRMSA has not sustained its burden of proof and deny its proposed rate increase; or (3) utilize the last known price level actually paid by PRMSA throughout the test year. It is clear that the particular circumstances of this proceeding require a pragmatic adjustment of the carrier's projections. *Permian Basin Area Rate Cases*, *supra*, at 800. The last alternative is the most acceptable for two reasons: (1) PRMSA's last known fuel cost ap-

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[30] GVI/PRMA's witness on this issue, Dr. Andic, essentially used a straight trend line analysis in her calculations based upon the updated ARAD forecast data then available. Andic Rebuttal Testimony at 20, 23-24. However, PRMSA's rebuttal testimony indicates that neither its fuel costs nor the ARAD data follow any clear trend line. Vasquez Rebuttal Testimony at Exhibit C. This exhibit, however, also points out PRMSA's extenuated forecast technique.

proximates the test year projections of the other carriers, and (2) all of the petroleum "trade intelligence" entered into the record in this proceeding support the conclusion that petroleum prices are likely to level off the remainder of 1981. If this figure proves to be too low, PRMSA can utilize the Commission's present policy of allowing cost-pass-through rate increases as the need arises.[37] On the other hand, if PRMSA is permitted to recover excess revenues based upon what is clearly an excessive fuel cost figure, shippers are left with no adequate remedy.

This leads us to the overall evaluation of PRMSA's revenue and expense projections. The findings of the Presiding Officer as to PRMSA's cargo and revenue projections will be adopted applying his evidentiary "rule of reason." The basic methodology used by PRMSA in making its cargo projections, a market survey adjusted for known plant closings, appears reasonable. These plant closings have been properly adjusted in the market survey.[38] However, the additional adjustments proposed by PRMSA due to the expected effects of Federal budget cuts on the economy of Puerto Rico were properly rejected by the Presiding Officer, such effects being clearly speculative. The adjustments made for the late delivery of the PONCE, however, appear to be reliable.[39]

PRMSA's cost projections in all areas except fuel costs appear to be reliable and the Presiding Officer's findings

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[37] Although the Presiding Officer correctly recognized that the Commission's bunker fuel cost increase pass-through policy had been terminated as it applies to bunker surcharges, he failed to note that fuel cost increases may be accommodated by permitting carriers to file overall rate increases with alternative abbreviated data. *Bunker Surcharges in the Domestic Offshore Trades*, 20 S.R.R. 401, 402 (1980).

[38] Huresky Rebuttal Testimony at 3.

[39] Vasquez Rebuttal Testimony at 18-19, Exhibits F-J.

in these respects will be adopted. The inflation factor applied to these costs closely approximates that resulting from Hearing Counsel's independent forecast technique.

Accordingly, the Commission will allow the adjustment for the PONCE but require that the fuel cost projections for the test year be held to the latest available data. Based upon these determinations, PRMSA's rate of return will be 20.69%.[40] This figure exceeds PRMSA's maximum reasonable rate of return of 17% and PRMSA's rate increases are therefore found to be unjust and unreasonable to the extent that they exceed an average of 14.5%.[41]

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[40] The last available fuel cost data for PRMSA in the record is the average price of $31.14 for the 20 days of March, 1981. Vasquez Surrebuttal Testimony at 12. PRMSA estimates fuel consumption for the test year at 1,521,442 barrels. Vasquez Surrebuttal Testimony at 13, n. 9. This computes to a total fuel expense of $47,377,704, approximately $7,383,000 less than PRMSA's estimate of $54,761,000. PRMSA Schedule B-II(1)—Transclass Case. Applying this reduction in costs to PRMSA's figures allowing for the PONCE adjustment but not the Federal Budget cuts results in a Total Net Income and Interest Expense of $40,858,000 over a rate base of $197,494,000 for a rate of return of 20.69%. See PRMSA Reply Brief, Appendix A. It should be noted that a decrease in expenses would ordinarily require a reduction in the working capital portion of the carrier's rate base. However, because rate base was not noted as an issue in this proceeding, this adjustment was not made for any of the carriers. If made, this adjustment would have further increased the rate of return.

[41] See PRMSA Reply Brief, Appendix A. Utilizing a rate base of $197,494,000, a 17% rate of return would yield net income plus interest of $33,574,000. Interest expense is constant at $23,651,000 and net income must be limited to $9,923,000. With a reduced Vessel Expense of $220,657,000, revenues must therefore be reduced $7,284,000 to $305,675,000. PRMSA's 17.2% average rate increase would have produced $45,929,000 and therefore must be reduced to $38,645,000 or an average rate increase of 14.5%. Because the carrier's rate structure was not made an issue in this proceeding, PRMSA will be allowed to apportion this average rate increase among the tariff items in its Tariff FMC-F No. 7 to achieve the same rate relationships it originally proposed.

The Presiding Officer's basic findings concerning Sea-Land's cargo and revenue projections should be adopted. The method by which its projections were made, a marketing study adjusted for company goals, appears to be reasonable with the exception of the projected decline in tonnage in the North Atlantic segment of the trade. As was correctly pointed out by the Presiding Officer, the fact that a competitor is increasing its deployment in a particular area does not automatically mean that the carrier will lose cargo to that competitor. If Sea-Land had supported its projection with a consistent competitive impact analysis it may have been acceptable. However, this was not done. Sea-Land's competitors have the highest concentration of lift capabilities in other segments in the trade where Sea-Land does not project a loss of cargo.[42] Absent some distinguishing competitive factors, this inconsistency effectively undermines the reliability of Sea-Land's projected decline in tonnage.

The inflation factor applied by Sea-Land was alleged to be too low by Hearing Counsel and was revised upward to more accurately reflect the factor obtained from the index used by Hearing Counsel and found appropriate by the Presiding Officer. Because this adjustment is solely one of methodology and does not go to the reliability of the underlying data, the Commission believes that it is not inappropriate in this proceeding.

Although the Presiding Officer indicated that "brokerage" payments made by Sea-Land to its Puerto Rico subsidiary raise a question as to their lawfulness, he found that because this was not expressly included as an issue in this proceeding and because Sea-Land was not put on notice of any allegation of such unlawful activity, it cannot be addressed in this proceeding. While there is some question as to the correct label to be placed

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[42] See, I.D. at 53; Rosynski Testimony at 9-10.

on these payments,[43] there is no dispute that the payments do reflect expenses incurred in the trade. Nor has it been demonstrated that these payments were in fact unlawful under the Shipping Act, 1916. These payments will therefore be considered as expenses in this proceeding.

When Sea-Land's cargo volume projections are modified pursuant to the foregoing discussion, and Hearing Counsel's inflation factor is applied, Sea-Land's rate of return computes to 16.04%.[44] This result closely approximates the 16.0% rate of return Sea-Land should be allowed, and, accordingly, its rate increases are found to be just and reasonable.[45]

As was noted by the Presiding Officer, GCML's proposed increases went virtually unchallenged in this proceeding. Although no specific findings were made as to its revenues and expenses, a review of the record reveals that it engaged in basically the same type of methodologies as its related corporation, TMT. It projected a substantial cutback in service with a resulting reduction in its cargo projections. While there was disagreement as to whom this cargo would go, there was no dispute that GCML would lose it.[46] GCML's projected operating costs were proportionately reduced to reflect its reduced service and its estimates were not contested by any other

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[43] Sea-Land paid a total of $607,547 to Sea-Land Puerto Rico, Inc. and itemized this payment as Freight Brokerage, although it later alleged it to be a sales expense. Zito Rebuttal Testimony at 2.

[44] Hearing Counsel Opening Brief, Appendix A.

[45] It should also be noted that Sea-Land cancelled the increases proposed to Tariff FMC-F No. 53 but did not make a corresponding decrease in its revenue forecast. If this had been done, Sea-Land would have arrived at a rate of return below the 16.04% found here.

[46] GCML projected a decline of 100,000 tons of cargo in the trade. Baci Testimony at 5.

party. It applied a 10% annualized inflation factor to its projected costs which was held to be consistent with the test index established in the proceeding. As a result of these calculations GCML's rate of return computes to 16.10%.[47] This is below the 16.5% maximum reasonable rate of return it is allowed, and accordingly its rate increases are found to be just and reasonable.

Questions were raised as to whether TMT met its burden of proof in this proceeding. Its methodology in forecasting cargo projections and revenues, a trend analysis adjusted for extraordinaries, was found to be reasonable. However, one of the extraordinaries it claimed, *i.e.* cargo gained due to GCML's reduction of service was disputed, due to ambiguities in TMT's original projections and its failure to adequately clarify these ambiguities and its subsequent adjustment of projections. The Presiding Officer held that TMT had not justified its final projections. While the Presiding Officer suggested that TMT might, by way of Exceptions to the Initial Decision, correct these deficiencies, it chose not to supplement the record but rather to simply highlight evidence of record which it alleged supports its final figures. As noted above, TMT has shown that GCML will lose 100,000 tons of cargo and not 120,000 tons. Accordingly, the corrected figure of 80,000 tons of additional cargo for TMT which is based upon a loss of 100,000 tons by GCML will be accepted.

The initial methodology used by TMT in arriving at its operating cost projections appears acceptable. Like GCML, it used the annualized 10% inflation factor approved by the Presiding Officer. However, questions arose as to whether this factor was properly applied to costs, and as to the legitimacy of its claimed expenses as it applied to "commissions" and "fees" assigned to its parent cor-

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[47] This data is reflected in GCML's original submissions filed with the Commission pursuant to Rule 67(a)(2) of the Commission's Rules of Practice and Procedure (46 C.F.R. 502.67(a)(2)).

poration. While TMT has adequately explained the application of its annualized 10% inflation factor,[48] it has not totally rebutted the allegation of double counting of supervision fees and management commissions. Its explanation is that CMC, its parent, supervised and managed both TMT and GCML through its Caribbean Division and that the $7 million "supervision" expense is TMT's allocable portion of the Caribbean Division's administrative and general expenses.[49] While this appears to be a satisfactory explanation of the "supervision" expenses, it completely fails to address "management commissions."

TMT's explanation of its claimed "management commissions" is that CMC incurs expenses in managing all its operating units, including the Caribbean Division, of which $3.013 million were allocated to TMT operations in this trade. This does not explain, however, whether part of CMC's home office expenses include an allocable portion of the Caribbean Division expenses. CMC's overall operating expenses are not itemized in the record.[50] TMT has therefore failed to sustain its burden of proof on this issue, and accordingly the $3.013 million in "management commissions" will be disallowed as an expense.[51]

TMT adjusted its rate base downward due to a double counting of vessel improvements in response to protests to its original projections. During the proceeding, it was alleged that an additional $7 million of rate base was overstated.[52] TMT's response to this allegation has been

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[48] See Farmer Testimony 4-7; TMT Exceptions at 18-19.

[49] See Farmer Testimony, Exhibit F, p. 1; TMT Exceptions at 10-11.

[50] See Farmer Testimony, Exhibit G.

[51] Administrative and general expenses were specifically included as an issue in this proceeding in the Order of Investigation and TMT bears the burden of proof on these issues.

[52] I.D. at 70.

that its projections are accurate and that, in any event, it is not an issue set forth in the Order of Investigation. TMT is correct in this latter contention, based on the Commission's interpretation of P.L. 95-475 which excludes any consideration of issues not noted in the Order of Investigation.[83] TMT's original calculations adjusted for its prior admission of rate base overestimate will therefore be accepted.

Based upon the above determinations, TMT's rate of return will be 15.33%, below the 15.5% maximum reasonable rate of return permitted. Accordingly TMT's rate increases are found to be just and reasonable.

ECONOMIC HARDSHIP

The Initial Decision

The Presiding Officer essentially found that Protestants had failed to establish that a particular economic hardship would result from the general rate increases proposed by the carriers. He reviewed the testimony of witnesses on this issue and found that it addressed only individual commodity rates and that these are irrelevant in a general rate proceeding. The Presiding Officer was also apparently of the opinion that even if economic hardship had been shown on the record, there is no relief available in a general rate increase investigation. It is his belief that the Commission may only grant specific relief on individual commodity rates based on specific transportation factors.

It is the Presiding Officer's opinion that the consideration of economic hardship in a general rate increase investigation would result in the imposition of confiscatory rates. The testimony of witnesses is seen as sincere and in some cases compelling but as simply not addressing

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[83] See Docket No. 79-48—*TMT—Proposed General Increases in Rates*, 19 S.R.R. 985, 988 (1979).

the issues relevant to the proceeding. The Presiding Officer noted that while this testimony does indicate that the economic interests of Puerto Rico and the Virgin Islands are suffering from a number of inflationary factors, it does not isolate the impact of ocean freight rates.

Position of the Parties

Exceptions

GVI/PRMA take exception to the findings of the Presiding Officer as to the lack of a showing of economic hardship resulting from the rate increases of the carriers. They submit that the record in this proceeding is replete with compelling testimony of both specific and general economic harm flowing from these specific rate increases. Allegedly, this economic impact is relevant to the public interest and must be considered in determining a reasonable rate of return for the carriers in this trade. GVI/PRMA further submit that the facts and circumstances surrounding these rate increases indicate price collusion on the part of the carriers in violation of the antitrust laws, and that this should be considered by the Commission in deciding the existence and extent of the economic impact.

PRMSA believes that the Presiding Officer erred in giving any consideration at all to the economic impact testimony advanced by GVI/PRMA. It argues that this is unfair to the carriers because GVI/PRMA refused to comply with discovery requests concerning its contemplated testimony and thereby precluded the carriers from adequately preparing for cross-examination of its witnesses.

Replies

GVI/PRMA contend that the economic impact testimony and evidence was properly admitted into the record of this proceeding and cannot now be excluded.

TMT, PRMSA and Sea-Land argue that no adverse economic impact resulting from the rate increases has been shown on the record of this proceeding. A general revenue investigation allegedly does not focus on the adverse impacts on individual shippers and their objections are said to be best left to complaint cases where the transportation factors can be more carefully analyzed. TMT also submits that it is improper for GVI/PRMA to attempt to argue price collusion by the carriers at this stage of the proceeding.

Hearing Counsel disagree with the Presiding Officer's opinion that economic hardship cannot be considered in a general rate investigation. It submits that economic impact is a valid rate of return consideration. Shipper testimony is argued to be relevant to this determination if sufficient shippers come forward to enable the Commission to deduce the general economic impact of the rate increases. Hearing Counsel maintains, however, that the evidence in this case does not indicate sufficient economic dislocation to justify an adjustment to what is otherwise a reasonable rate of return for each carrier.

Conclusion

The economic impact of rate increases is relevant to a determination of their reasonableness[54] and must be considered as a relevant public interest factor in making these determinations.[55] The economic condition of the domestic offshore economies and the particular economic interests represented by Protestants are certainly relevant public interests whose welfare should be balanced against the revenue needs of the carriers. The manner in which the economic impact of rate increases may best be factored into rate of return decisions is by considering it in connection with the award of risk premiums. The

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[54] *Alaska Rate Investigation*, 1 U.S.S.B. 1, 7 (1919).

[55] *Permian Basin Area Rate Cases, supra*, at 791.

Commission cannot impose a confiscatory rate of return upon a carrier because of economic hardship considerations.[56] However, in determining the amount of additional revenues that will be necessary for a carrier to attract capital and compensate its investors for the risks they have assumed, it is appropriate that the Commission consider, in balancing carrier interests against shipper and other affected interests, the economic impact that a rate increase can be expected to have on a trade.[57]

Whenever a business entity is in a positive rate of return situation (in excess of imbedded debt costs) there is some degree of ability to attract capital and compensate investors for risk. The question becomes what is a "fair" rate of return. The comparative earnings test uses the average earnings of U.S. businesses as a benchmark by which such "fairness" can be measured.[58] Imposing a rate of return below the U.S. average would require a finding that the particular entity has less risk than average. While economic hardship could be factored into in such considerations, if risks are shown to be above average it is highly unlikely that even a showing of extreme hardship would justify a rate of return below average. The relevant inquiry is when business risks above the national average are shown, to what extent can economic hardship act as a moderating factor. In this regard attention should be focused upon the criteria used to award "risk premiums." To reduce business "risk premiums" on the basis of economic hardship would require a showing of extreme economic dislocation resulting directly from a carrier's rate increases.[59]

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[56] *Baltimore & Ohio Railroad Co. v. United States*, 345 U.S. 146, 150 (1953).

[57] *See Permian Basin Area Rate Cases, supra*, at 812.

[58] *F.P.C. v. Hope Natural Gas Co., supra*, at 603.

[59] This would require a finding that risks assumed by carrier investors due to the overall volatility of the trade are outweighed

In terms of a common carrier serving an insular domestic offshore jurisdiction, the best evidence of possible economic hardship is a showing that the costs of goods and services in the general offshore economy have increased as a direct result of increased ocean transportation costs at a greater rate than those on the U.S. mainland. By such a showing some inferences can be drawn as to the comparative burden on consumers and the comparative competitive disadvantages imposed on business interests in the offshore economy. Also relevant here would be an analysis of the general state of the offshore economy. This would enable the Commission to ascertain the economic impact imposed in the rate increases.

Evidence relating to specific impacts of a general rate increase on single commodity shippers and their ultimate consumers could also be relevant in an economic impact inquiry. While not as comprehensive as general comparative analysis, a fair sampling of the impact upon major commodities moving in the trade is a sufficient basis upon which inferences may be drawn as to the overall impact of a general rate increase.[60] At what point such inferences can be drawn is a question which must be answered on an *ad hoc* basis. A trade-wide rate investigation probably presents the best vehicle for considering both general and specific impacts.

The question then becomes what, if any, economic hardship has been established in this case and how does it im-

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by considerations such as business failures, resulting unemployment and the inability of the average consumer to obtain the basic necessities.

[60] Clearly, if 100% of the commodities moved by carriers in the trade to and from an insular economy are examined, a general comparative analysis can be directly derived from such evidence. Also, if only a few minor commodities are surveyed, it is doubtful that any general inferences can be established. The major commodities, if sufficiently analyzed, can form the basis of general inferences as they comprise the majority of the carriers' cargo as well as the vital trade of the insular economy.

pact upon the reasonable limit of the carriers' rates of return. Protestants should not be estopped from alleging economic hardship due to a failure to comply with discovery requests of PRMSA. It is questionable whether Protestants in fact *failed* to comply with discovery requests [81] and whether the carrier has suffered any significant prejudice as a result of any such failure.[82] Therefore, the imposition of sanctions has not been shown to be warranted under the circumstances, particularly given the expedited nature of the proceeding.[83] Accordingly, the Commission will consider the evidence of economic hardship entered into the record of this proceeding.

The Protestants did submit substantial evidence of general and specific economic adverse impacts resulting from ocean freight rates on the interests they represent. They satisfactorily established that ocean freight rate increases have a clear adverse impact upon the costs of basic commodities,[84] the competitive position of business interests

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[81] Protestants allegedly did not comply with discovery requests asking the witnesses in the hearings in St. Thomas and San Juan to bring with them financial data as to their individual businesses. At least one witness complied with this request. I.D. at 88. Also, other discovery requests may have been complied with. See GVI/PRMA Reply Brief at 108-110.

[82] Certainly, any such failure did not significantly prejudice PRMSA's ability to cross-examine these witnesses. PRMSA Reply to Exceptions at 103-105. I.D. at 88, n. 34. Further, no formal discovery orders were issued in this proceeding and only a general discussion of discovery requirements was given by the Presiding Officer. See Summary of Ruling Made at Second Formal Prehearing Conference and Notice of Schedule Established, issued March 26, 1981.

[83] Rule 210 of the Commission's Rules (46 C.F.R. 502.210) contemplates that such sanctions are to be imposed by the presiding officer. The Presiding Officer here refused to impose such sanctions and the Commission is not prepared to question that determination.

[84] Due to the low profit margins of food retailers, the major impact of the rate increases will be passed on to consumers. Caparros Testimony at 2-3. This was corroborated by other testi-

in relation to the mainland U.S.,[65] and the basic economic welfare of the offshore economy in relation to the U.S. mainland.[66] However, all of this evidence relates to the general trend in ocean freight rates in recent years and was not specifically tied to these particular rate increases. Accordingly, a specific extreme dislocation resulting from these specific rate increases was not established. Therefore, no adjustment of the carriers' rates of return based solely on this consideration is warranted.

Finally, whatever its merits, the question of price collusion cannot now be considered in this proceeding. It was not included as an issue in the Order of Investigation. The tactic here of having it considered under the economic hardship issue on the basis of a presumption of economic injury due to a *per se* violation of the antitrust laws is tenuous. First, it would require a finding of a violation of antitrust law, which, in the context of this proceeding

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mony. Transcript of May 4, 1981 Hearing at 95, 1933. Housing costs will also be substantially impacted. Testimony of Murray at 3. Motor vehicle costs will also be increased and fewer vehicles will be available. Transcript of May 4, 1981 Hearing at 50-54.

[65] The apparel industry will be put at a distinct competitive disadvantage compared to U.S. mainland firms. Transcript of May 6, 1981 Hearing at 332, 344. At least one commodity whose shipping costs are a significant determinate of its ability to move, rags, has stopped moving due to the costs of transportation. Transcript of May 6, 1981 Hearing at 282-283, 291-295. The tourism industry will indirectly suffer. Transcript of May 4, 1981 Hearing at 192-193. The liquor industry will lose business to mainland suppliers. Palewonsky Testimony at 2-3.

[66] The economies of the Virgin Islands and Puerto Rico are dependent upon ocean transportation. Francis Testimony at 5-6; Castillo Testimony at 7. Increases in the costs of transportation therefore, will have a clear impact on major segments of these economies in the manufacturing sector, Castillo Testimony at 7, agricultural products, and textiles, *Id.* at 8-11. While these interests recognize that rate increases cannot be avoided, they are of the opinion that the impacts of the rate increases should be considered in establishing a reasonable profit for the carriers. Castillo Testimony at 16; Transcript of May 6, 1981 Hearing at 352-353.

is beyond the Commission's statutory authority. Second, this allegation is subject to the same if not more serious notice and due process impediments as is the issue of Sea-Land's brokerage payments.[87] Third, it would be contrary to the Commission's prior holdings on the exclusionary effects of an Order of Investigation under P.L. 95-475[88] and it is now too late for the Commission to amend the investigative scope of this proceeding in light of the statutory requirement that the Commission issue its final decision by September 26, 1981.[89] For all the above reasons, the Commission will not consider Protestants' allegations of price collusion in this proceeding.

THEREFORE, IT IS ORDERED, That the proposed rate increases to Tariffs FMC-F No. 34 and 53 of Sea-Land Service, Inc. are found to be just and reasonable; and

IT IS FURTHER ORDERED, That the proposed rate increases to Tariff FMC-F No. 5 of Trailer Marine Transport Corporation are found to be just and reasonable; and

IT IS FURTHER ORDERED, That the proposed rate increases to Tariff FMC-F No. 2 of Gulf Caribbean Marine Lines, Inc. are found to be just and reasonable; and

IT IS FURTHER ORDERED, That the proposed rate increases to Tariff FMC-F No. 7 of Puerto Rico Maritime Shipping Authority are found to be unjust and unreasonable to the extent they exceed an average of 14.5%; and

IT IS FURTHER ORDERED, That the Puerto Rico Maritime Shipping Authority refund to any person who was charged on the basis of its unsuspended proposed rate increases an amount equal to that portion thereof

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[87] See I.D. at 62, n. 27.

[88] See footnote 69.

[89] On June 5, 1981, in response to the request of the Presiding Officer, the Commission issued an order extending the time period for this proceeding by 60 days pursuant to section 3(b) of the Intercoastal Shipping Act, 1933, as amended (46 U.S.C. 845(b)) to September 26, 1981.

found to be not just and reasonable plus interest in accordance with section 3(c)(2) of the Intercoastal Shipping Act, 1933, as amended (46 U.S.C. 845(c)(2)); and

IT IS FURTHER ORDERED, That the Puerto Rico Maritime Shipping Authority file with the Commission within thirty (30) days from the service date of this Order amendments to its Tariff FMC-F No. 7 cancelling its rate increases of February 27, 1981 and implementing a 14.5% average general rate increase which will become effective immediately upon filing; and

IT IS FURTHER ORDERED, That the Puerto Rico Maritime Shipping Authority file with the Commission's Secretary within sixty (60) days from the service date of this Order a full accounting of all refund payments made pursuant to this Order; and

IT IS FURTHER ORDERED, That this proceeding is discontinued.

By the Commission.

/s/ Joseph C. Polking
JOSEPH C. POLKING
Assistant Secretary

Vice Chairman Moakley, concurring:

I concur with the ultimate conclusions reached by the majority in this proceeding but differ in the manner in which two related issues were resolved.

First, I disagree that a logical discussion of the pros and cons of financial risk premiums, such as that set forth in the majority opinion, is a sufficient basis on which to disregard the testimony of expert witnesses and to overturn the Administrative Law Judge's conclusions on this subject. It is particularly troublesome that the majority would adopt this approach, not upon any particular exceptions to the initial decision on the financial risk issue, but, rather, upon its own motion. General Order 11 speaks only in general terms on risk premiums. It states in pertinent part, that

> ". . . the average rate of return earned by U.S. corporations is computed and, where appropriate, adjusted for current trends in rates of return, the cost of money and *relative risk*." (Emphasis supplied). 46 C.F.R. 512.6(d)(2)(ii).

The staff economic witness on this issue, Mr. Jay Copan, was one of the authors of that provision in General Order 11. The majority would rely on his expert testimony in this proceeding because, among other reasons, his methodology comports with G.O. 11, but would disregard his opinion on whether financial risk premiums fall within the meaning of "relative risks" as set forth in that rule.

While the logic used by the majority is appealing, the issue of whether financial risk premiums should, as a general matter, be considered, is one which should be addressed in a rulemaking proceeding. The mandate of P.L. 95-475 to resolve methodology questions by rule and not in general rate proceedings is certainly clear.

The second area in which I depart from the majority opinion is its evaluation of the testimony relating to eco-

nomic hardship. The majority concluded that protestants satisfactorily established that ocean rate increases have a clear adverse impact upon:

(1) the costs of basic commodities;

(2) the competitive position of business interests in relation to the mainland U.S.; and

(3) the basic economic welfare of the offshore economy in relation to the U.S. mainland.

However, this evidence is not found persuasive in this proceeding because it "was not specifically tied to these particular rate increases."

It certainly challenges the imagination to understand how the protestants could have more specifically tied the economic hardship evidence to these particular rate increases. The increases were just beginning to take effect at the time that the shipper witnesses were testifying. In all proceedings under P.L. 95-475, hearings must be completed within 60 days of the Order of Investigation which, in turn, must be issued before the increases take effect. This criticism of the protestants' evidence becomes even more severe in connection with other rate increases that the Commission may choose to suspend. Evidence of the impact would never be available during proceedings involving suspended increases because the rates would not be in effect and adherence to the majority's position would thus render all shipper input irrelevant.

I would find that the economic impact demonstrated on this record by protestants is relevant to these particular increases and that the award of financial risk premiums to TMT and GCML should be deleted because of this impact, and *not* because, as a general rule, it is inappropriate to consider financial risk.

In this respect, I would agree with the distinctions made by the majority opinion between the nature of business risk and that of financial risk. Financial "leveraging"

is essentially speculative and any benefits to the public interest obtained by allowing carriers to obtain the rewards of such leveraging are here outweighed by the hardship which will be imposed upon these insular economies by the instant rate increases. In short, I believe that it is necessary to balance the equities here in favor of the consumer.

DOCKET 81-10

SEA-LAND SERVICE, INC.,
TRAILER MARINE TRANSPORT CORPORATION,
GULF CARIBBEAN MARINE LINES, INC. and
PUERTO RICO MARITIME SHIPPING AUTHORITY,
PROPOSED GENERAL RATE INCREASES IN THE
PUERTO RICO AND VIRGIN ISLANDS TRADES

Commissioner Richard J. Daschbach

SEPARATE OPINION

Judge Kline's July 20, 1981 Initial Decision is fully dispositive of the five issues delineated in the Commission's January 29, 1981 Order of Investigation and Hearing (see headnotes at pp. 1-2 of Initial Decision) and I adopt its findings that the rate increases of Sea-Land, the Puerto Rico Maritime Shipping Authority, and Gulf Caribbean Maritime Shipping Lines are just and reasonable. I further find that TMT's rate increase is just and reasonable.

In view of the Initial Decision's thorough treatment of the salient issues in this proceeding, the Commission's extensive re-examination of them is, in my judgement, unnecessary and duplicative.

APPENDIX C

Federal Maritime Commission
Served July 20, 1981
Exceptions Due 8-4-81
Replies to Exceptions Due 8-14-81

FEDERAL MARITIME COMMISSION

No. 81-10

SEA-LAND SERVICE, INC.,
TRAILER MARINE TRANSPORT CORPORATION,
AND GULF CARIBBEAN MARINE LINES, INC.
PROPOSED GENERAL RATE INCREASES IN THE
PUERTO RICO AND VIRGIN ISLAND TRADES

This is the first trade-wide general-revenue investigation under Public Law 95-475, which imposes strict time limits. It investigates general-rate increases of 16 to 18 percent filed by four carriers, PRMSA, Sea-Land, TMT and GCML. The huge scope of the proceeding compressed within strict time limits presented severe problems which were met by adopting modern procedures which largely abandon the old-fashioned, trial-type oral hearing. Additional problems arose because the pertinent regulation, G.O. 11, does not clarify certain critical matters and because it was not always clear from reading the Commission's Orders what were its intentions regarding the scope of the issues being litigated. Protestants were given ample opportunity to show whether the carriers had carried their burdens of proof by a preponderance of the evidence, recognizing that in rate cases only reasonable approximations are required. The record shows that

with one possible exception (TMT) the carriers have adequately explained their methodologies and justified their rate increases. More specifically I find:

(1) An exact rate of return cannot be fixed with assurance on this record because of deficiencies in all of the expert witnesses' testimony. However, the closest approximation is provided by BIE witness Copan and confirmed by others to show that 16 to 17 percent up to about 18 percent for PRMSA, primarily, represents a zone of reasonableness. Witness Copan's recommendations would have been followed more closely but for a significant omission, which he and BIE should cure on exceptions. This omission refers to an estimate of 7 percent for interest which he made when deriving a benchmark rate of return from a group of industries. For PRMSA, consideration of the fixed charges coverage ratio is necessary as a check but, as Mr. Copan shows, the ratio justifies PRMSA's rate increases.

(2) All respondents except possibly for TMT have generally provided adequate explanations showing that their revenue and cargo volume methodologies are reasonable. Protestants' alternative methodologies are not found to be persuasive or more reliable but seem to have been improvised and based on questionable techniques.

(3) The carriers' calculations of fuel and increases in other costs are reasonable under the circumstances. Protestants' alternative calculations are found to be deficient, largely improvised, and based upon doubtful methodologies and expedient adjustments.

(4) Economic hardship cannot be measured with assurance in a general-revenue case and the evidence in this case is inconclusive. Essentially individual shipper testimony is relevant in an individual commodity rate case, not a general-revenue proceeding.

Individual shippers with particular rate problems who testified in this proceeding should be steered to proper negotiations or relevant proceedings to seek relief.

(5) Protestants' criticisms of certain aspects of the carriers' cases are found to be valid. These refer to certain projections of Sea-Land, add-ons to rate of return because of bad past years, the effects of budget cuts, PRMSA's use of a "surrogate" G.O. 11 formula, and to some extent, its attempt to compensate for its tax-exempt status. These criticisms, however, after corrections, do not alter the finding that the rate increases are justified. However, protestants' criticism of TMT's curious change in its prediction from that originally presented to the Commission, and certain other matters not adequately explained, warrant a finding that TMT has not proven its projections to be reasonable, absent satisfactory explanation on exceptions to the Commission.

(6) Certain critical recommendations are made for the sake of efficiency in future rate cases. These concern the need to clarify G.O. 11 regarding the formula and data to be used, the need for Commission Orders to specify the scope of the issues; the need to formulate a rule governing admissibility of later evidence; and the need to encourage shippers and carriers to seek solutions to individual rate problems in other than general-revenue proceedings.

Amy Loeserman Klein and *T. Scott Gilligan*, for respondent PRMSA.

Donald J. Brunner, for respondent Sea-Land Service, Inc.

Michael Joseph, for respondents TMT/GCML.

Edward J. Sheppard, *George J. Weiner*, and *April C. Lucas*, for protestants GVI/PRMA.

Daniel J. Sweeney and *Steven J. Kalish*, for protestant DTPTC.

Walter R. Fournier, for protestant Chamber of Commerce for Puerto Rico.

John Robert Ewers, *Alan J. Jacobson* and *Charles C. Hunter*, for Bureau of Investigation and Enforcement.

INITIAL DECISION [1] OF NORMAN D. KLINE, ADMINISTRATIVE LAW JUDGE

This proceeding is the first general trade-wide investigation of general rate increases filed in the United States Atlantic and Gulf-Puerto Rico and U.S. Virgin Islands trades in approximately seven years, the last such investigation (Docket Nos. 71-30, 71-42, 71-43) having concluded in 1974.[2] It began after general rate increases were filed by the Puerto Rico Maritime Shipping Authority, Sea-Land Service, Inc., Trailer Marine Transport Corporation, and Gulf Caribbean Marine Lines (PRMSA, Sea-Land, TMT, and GCML). The proceeding was instituted by the Commission's Order of Investigation, served January 29, 1981, originally confined to the three carriers other than PRMSA, but on February 27, 1981, the Commission added PRMSA to the case.

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[1] This decision will become the decision of the Commission in the absence of review thereof by the Commission (Rule 227, Rules of Practice and Procedure, 46 CFR 502.227).

[2] The last such trade-wide investigation was Docket Nos. 71-30, 71-42, 71-43, *Transamerican Trailer Transport, Inc., Sea-Land Service, Inc., Seatrain Lines, Inc.—General Increases in Rates, etc.*, 14 SRR 645 (1974). These were the three main carriers operating in the trade at that time. Of course, there have been numerous investigations of general rate increases filed by individual carriers since that time involving PRMSA, Sea-Land, and TMT, but until the present proceeding, the Commission had not decided to conduct a simultaneous investigation of all four major carriers now operating in the trade.

The rate increases were all filed between November 26, 1980, and December 5, 1980, and were designed to become effective for Sea-Land on January 25, 1981, for TMT/GCML on January 29, 1981, and for PRMSA, on February 3, 1981. However, for various reasons, only GCML's rates went into effect as scheduled, the others being deferred so that ultimately PRMSA's and Sea-Land's rates became effective on February 27, 1981, and TMT's on March 3, 1981.[3] The rate increases subject to investigation were 18 percent for Sea-Land, 16 percent for TMT/GCML, and a weighted composite increase of 17.2 percent for PRMSA consisting of an 18 percent increase in the North Atlantic ports and 16 percent in the South Atlantic and Gulf ports. The rates were not suspended but were made the subject of investigation under section 18(a) of the Shipping Act, 1916, and sections 3 and 4 of the Intercoastal Shipping Act, 1933. These rate increases were published in supplements to two of Sea-Land's tariffs (FMC-F No. 34 and No. 53); one of TMT's (FMC-F No. 5), one of GCML's (FMC-F No. 2) and PRMSA's tariff FMC-F No. 7. Interestingly, Sea-Land's Tariff No. 53 is an intermodal tariff applying between Canadian ports and San Juan, Puerto Rico, a tariff which the Commission has decided is a domestic rather than foreign tariff. See Special Docket No. 556, *Pan American Industries, Inc. v. Sea-Land Service, Inc.*, 18 SRR 1697 (1979); but cf. Special Docket No. 695, *Application of Sea-Land for the Benefit of the Otto Gerdau Co.*, 19 SRR 1424 (I.D. 1980, FMC., April 7, 1980). In any event the rate increases in the Canadian tariff were ultimately canceled by Sea-Land and never went into effect.

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[3] There appears to be some confusion about the effective date of Sea-Land's increases probably caused by so many postponements and special-permission applications which affected the various dates of the rate increases. BIE states that Sea-Land's changes became effective on March 3, 1981 (BIE opening brief, p. 1), together with TMT's. However, the Commission's tariff records indicate that Sea-Land's increases in its tariff FMC-F No. 34 went into effect on February 27, 1981. (See Supplement No. 26 to cited tariff.)

Protests to the proposed rate increases were filed by the Government of the Virgin Islands (GVI), the Puerto Rico Manufacturers Association (PRMA), the Chamber of Commerce of Puerto Rico, and The Drug and Toilet Preparation Traffic Conference, Inc. (DTPTC). The combined protestants contended that the rate increases would have a serious adverse economic impact on Puerto Rico and the Virgin Islands[4] and challenged the carriers' supporting materials filed with the rate increases as being speculative, inaccurate, and unreliable especially as regards proper allocation of rate base and expenses, reasonableness of projections of cargo volume and revenue and the reasonableness of the rate of return.

The three carriers originally named as respondents replied to the protests in defense of their rate increases, citing Commission case law and regulations in support of their financial exhibits and asserting the need for increased revenue so that the islands could enjoy the benefits of reliable service by financially healthy carriers. PRMSA also defended its supporting materials filed with its financial case but encountered a problem with its submissions relating to projections based upon the assumption that it would acquire the *ATLANTIC BEAR*, an acquisition which did not occur. After PRMSA had filed replies to the protests on January 15, 1981, in which it attempted to show that deployment of the two Transclass vessels in the Gulf would not significantly alter PRMSA's pro forma year results, the Commission found that these submissions contained new factual assertions which should have been presented back in December with the original case. The Commission therefore rejected PRMSA's tariff filings for failure to comply with Rule 67. See Order, 20 SRR 838. However, the Commission later permitted PRMSA's rate increase to become effective on February 27, 1981, on special permission.

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[4] Protestant DTPTC has not contended the issue of economic impact in litigating this case but has joined other protestants in the other issues.

The Reasons for the Hearing

In ordering a hearing the Commission recited a number of facts which apparently convinced them of the need for such a proceeding. The Commission cited the protestants' contentions generally regarding the carriers' speculative and unreliable financial submissions and specified that protestants had challenged the carriers' projected labor costs, fuel costs, vessel maintenance costs and administrative and general expenses. The Commission stated that "these matters will be made an issue in this proceeding to provide Protestants opportunity to sustain their objections." (Order, p. 6.) Furthermore, the Commission noted that "in some extreme situations" concentration on a strict comparative analysis of a carrier's rate of return with other U.S. corporations may fail to take into account other important public interests such as economic hardships that rate increases "may impose on the affected domestic offshore economies and commercial interests." Therefore, when consideration is given to allowing a higher than average rate of return because of particular risks which carriers face in serving a trade, the Commission stated that "such considerations must be balanced" against the possible economic hardships. (Order, p. 6.)

Having recited the above facts, the Commission then stated:

> Accordingly, a hearing is necessary to resolve the issues specified below in order to determine whether the general rate increases here are unjust, unreasonable, or otherwise unlawful under section 18(a) of the Shipping Act, 1916 and sections 3 and 4 of the Intercoastal Shipping Act, 1933. Order, p. 6.

The Commission thereafter set forth the issues to be determined in addition to the ultimate issue of the justness and reasonableness of the rate increases. The Commission specified five issues, the first relating to an appropriate rate of return; the second and third relating to

the sufficiency of the carriers' revenue and cargo volume projections as to methodology employed and accuracy; the fourth relating to the propriety of the carriers' calculations of projected labor, fuel, vessel maintenance and administrative and general expenses; and the fifth relating to the question of possible economic hardship on the affected interests represented by protestants and, if such were shown, how it should be treated when determining a reasonable rate of return. (Order, pp. 8-9.)

The exact language employed by the Commission in framing the above five issues is as follows (Order, pp. 8-9):

(1) What is an appropriate rate of return for the carriers named as Respondents? In addressing this question consideration should be given to the average rate of return earned by other U.S. corporations and the inherent risks, if any, in operating in the affected trades.

(2) Is the methodology used by Respondents in making revenue and cargo volume projections appropriate?

(3) Are Respondents' revenue and cargo volume projections sufficiently accurate, and, if not, what are the appropriate projections?

(4) Have Respondents properly calculated their cost projections covering labor, fuel, vessel maintenance and administrative and general expenses, and, if not, what are the proper calculations?

(5) Do the proposed rate increases impose an economic hardship on the affected interests represented by Protestants and Intervenors, and, if so, to what extent should this factor be considered in determining a reasonable rate of return for the carriers? Order of Investigation, pp. 8-9.

In addition to the above explanations, the Commission provided comments on the nature of the inquiry into the

question of the carriers' reasonable rate of return. The Commission stated:

> In any investigation into the reasonableness of a general rate increase, consideration must be given to what constitutes a just and reasonable rate of return for the carrier. In addressing this issue, the Commission generally takes into account: (a) the average rate of return earned by U.S. corporations, and (b) the risks faced by the individual carrier that may warrant a different rate of return. This analysis must also necessarily consider the group of U.S. corporations that should be used to derive an average, the time span examined in this regard and the criteria to be applied in determining whether a risk factor adjustment should be made, and, if so, the degree of such an adjustment. Such an inquiry will be made in this case. (Order, p. 5.)

As mentioned above, the Commission added PRMSA as a respondent to this case by Order of February 27, 1981. PRMSA has by far the largest share of the trade. The Commission incorporated the issues previously set forth in its first Order, discussed above, for application to PRMSA. The Commission also noted:

> Accordingly, because of this similarity of issues, particularly the rate parity considerations prevailing in this trade, PRMSA's proposed rate increases will be permitted to go into effect as scheduled but will be included in this investigation, and PRMSA will be made a respondent in the proceeding. (Order, February 27, 1981, p. 2.)

However, the Commission added another matter applicable only to PRMSA, namely, consideration of the "fixed charge coverage ratio standard." Thus, the Commission stated (Order, February 27, 1981, p. 3):

> In addition, because of the peculiar capital structure of PRMSA, the fixed charge coverage ratio standard

of reasonableness stated in 46 C.F.R. 512.6(d)(3) will also be considered in determining the reasonableness of PRMSA's proposed rate increases.

* * * *

IT IS FURTHER ORDERED, That all issues stated in the said Order of Investigation be considered in determining the reasonableness of PRMSA's proposed rate increases and that in addition consideration be given to the fixed charge coverage ratio standard of reasonableness as set forth in 46 C.F.R. 512.6 (d)(3) in making such determination; . . .

Problems Encountered in Litigating This Case Under the Governing Statute, P.L. 95-475

Having issued its two Orders of Investigation, discussed above, the Commission launched this massive investigation. At the outset it was clear that the parties were facing enormous difficulties caused by the huge scope of the proceeding, the number of parties, and the pressures imposed by the time prescriptions erected in the governing statute, P.L. 95-475, which amended the Intercoastal Shipping Act, 1933, to ensure that rate cases would be decided by the Commission within 180 days, or, if necessary, 240 days after effective date of the rate increases. Because this appears to be the first trade-wide general rate investigation under the new statute, the Commission has not had the experience of conducting such a proceeding under the new law. I deem it my duty to point out to the Commission possible means to alleviate the huge burdens and expenses which every party has undergone in this proceeding in future proceedings, consistent with the reforms contemplated by P.L. 95-475.

There are two major areas the Commission should consider when initiating future rate cases. First, the Commission should, whenever possible, provide specific guidance to the parties as to the problems which the Commission believes require a hearing, as P.L. 95-475 re-

quires. Second, again as P.L. 95-475 envisions, the Commission should amplify and clarify its General Order 11 so that parties need not continually litigate the same type of issues concerning rate of return methodology, cost escalation factors, or means of projecting carriers' cargo and revenue in pro forma years.

P.L. 95-475, 92 Stat. 1494, became effective on January 16, 1979. It had two main purposes.[6] The first, not relevant to the particular discussion here, concerns the Commission's power to suspend rates and to grant refunds to shippers if general rate increases are found to have been excessive. The second, highly relevant here, concerns reforms enacted to expedite the Commission's decisionmaking process. (See Senate Report, cited above, p. 1.) In reaction to the fact that Commission general rate cases had consumed years of litigation time, Congress enacted strict time periods, requiring end of hearings within 60 days, Initial Decisions, if any, within another 60 days, and Commission's final decision within 60 days thereafter (unless extended for compelling reasons another 60 days).

Enactment of such short time periods to determine a multitude of critical matters in general revenue cases was recognized as requiring corresponding procedural reforms. Procedural techniques which would assist in moving cases forward expeditiously were specifically contemplated and written into the statute or the Commission's implementing regulation, Rule 67. For example, the carriers are required to file their direct written case with the tariff filing 60 days before the effective date of the rate change, the case is to be developed by written rather than oral evidence and without cross-examination to the extent possible consistent with due process, the Commission is required to explain in detail its reasons for instituting a hearing, and the Commission is sup-

[6] For a good discussion of this law and its purposes, see Senate Report No. 95-1240, 95th Cong., 2d Sess., September 26, 1978.

posed to promulgate guidelines periodically for determining reasonable rates of return or profit. (See Senate Report, p. 2.) To a considerable extent the massive record in this case was developed by written rather than oral testimony and cross-examination was held to a minimum. However, it is apparent that this case consumed much more time and required expenditure of much more money in litigation expense because the parties were required to litigate numerous issues which had not been laid to rest in General Order 11 and furthermore were not advised by the Commission in greater detail concerning the specific problems which the Commission had found with the materials which had been submitted by the carriers before the case was formally instituted. For example, because General Order 11 does not describe the "comparable earnings" test for rate of return in any detail, yet requires that rate cases be determined by that test as do the Commission's Orders in this case, we have a half dozen or so expert witnesses each selecting his or her own group of companies for comparison and adding extra points for risk or other reasons. Obviously it will save litigants a great deal of time and money in future submissions if G.O. 11 is revised to specify how the comparable earnings test should be employed by the carrier, for example, what reference group should be selected over what time span, and what further adjustments should be made for what types of risk or current trends and by what measuring techniques. It would also be helpful if G.O. 11 would select other uniform formulae such as which inflation escalation factor should be employed in projecting future costs so that we would not have a medley of inflation factors submitted, e.g., GNP Implicit Price Deflator, Producer Price Index for Finished Goods, PPI for finished goods less food and fuel, Consumer Price Index, etc., all of which have been put forth by various expert witnesses in this case. Other problems, such as whether one can use current data rather than data submitted originally with the rate filing,

should be considered as well, whether in G.O. 11 or in Rule 67. This problem has been a serious one in this case and has occurred in previous cases as well. As mentioned, P.L. 95-475 specifically contemplated revisions to G.O. 11 which would help narrow issues in future rate cases. As the statute states in regard to the Commission's issuance of regulations providing guidelines:

> After the regulations referred to in the preceding sentence are initially prescribed, the Commission shall from time to time thereafter review such regulations and make such amendments thereto as may be appropriate. Section 3 (a), Intercoastal Shipping Act, 1933, last sentence.

The legislative history to P.L. 95-475 makes clear that Congress believed that continual issuance of guidelines by the Commission was critically important. The Senate Report, for example, cited one witness's testimony as follows:

> It is tragic that after 40 years of being subject to the Intercoastal Shipping Act in the noncontiguous trades, the carriers are completely unaware of what would constitute a guideline for just and reasonable rates of return and consequently that issue must be litigated in each case. (Senate Report, cited above, p. 13.)

The Senate Report explained the purpose of the requirement that the Commission issue guidelines, stating (*Id.*, p. 13):

> This should help assure that the same complicated and lengthy arguments will not have to be made every time a hearing is held.

I call the Commission's attention to the "same complicated and lengthy arguments" in this case regarding what is an acceptable rate of return, what reference group of companies should be compared, what adjustments should be made, etc.

Finally, I call the Commission's attention to Commissioner Moakley's testimony to Congress emphasizing the need for the Commission to issue substantive guidelines regarding methodology so as to curtail repetitive hearings, a problem of the past and one that has continued into the present case. Commissioner Moakley stated:

> Second, the methodology prescribed by the Commission for the determination of what constitutes a just and reasonable profit would have to be given substantive effect and be followed rigidly throughout each rate proceeding, unless otherwise ordered by the Commission. *Much of the time now consumed by rate proceedings is spent on arguments relating to methodology and the introduction of evidence in support of those arguments.* . . . The Chairman has already directed the staff to prepare recommended rule changes which will resolve many of the questions of methodology which have plagued our rate proceedings in the past. Hearing Before the Senate Subcommittee on Merchant Marine and Tourism, 95th Cong., 2d Sess., August 29, 1978, p. 17. (Emphasis added.)

The Commission has also stated that the procedural rules under which rate cases proceed would also be revised from time to time as follows:

> We anticipate that the procedural rules will evolve, based on our experience in processing general rate changes under these procedures. Docket No. 78-47, promulgating original Rule 67, February 14, 1979, p. 10.

I strongly recommend, therefore, that the Commission reopen proceedings to amend and clarify both General Order 11 and Rule 67 in keeping with the statutory mandate to provide guidance so that continual relitigation of essentially similar issues can be prevented.

As to the guidance that the parties would welcome in a particular case, it also became apparent that much

time and expense could have been saved in this case had the Commission explained in greater detail why a hearing was necessary on so many issues and, if so, what particular areas the parties should scrutinize. Although the Commission had had the carriers' materials for analysis at least 60 days before this case was docketed, the Commission specified numerous issues without indicating anything other than that protestants had alleged the carriers' materials to be "speculative" or "unreliable" or something similar. Had the Commission indicated with further specificity exactly what portions of the carriers' materials were to be scrutinized and why they might be unreliable, much time might have been saved in the ensuing litigation. In this regard, the legislative history to P.L. 95-475 indicates that Congress believed that the Commission should show the need for a hearing in detail after having analyzed the carriers' evidence during the 60 days before instituting a formal proceeding. The Commission, having the benefit of advance analysis of data and evidence, was supposed to explain in detail why a hearing was necessary. (See Senate Report, cited above, pp. 12-13.) In this case one can infer from the Commission's Order that a hearing is necessary to test the various contentions of protestants regarding the quality of the carriers' evidence. (Order, p. 6.) However, this is the same sort of practice which caused so many delays in the past. For many years the Commission's orders instituting rate cases merely recited the claims of protestants and the replies of the carrier's and then set everything down for hearing without narrowing issues. The results were that every litigating party felt free to dump into the case evidence on every contention and every issue that the party wished to litigate having any connection with the ultimate question of the carrier's need for more revenue. That explains to some extent why so much time was consumed in rate cases and why there were so many continued hearings to which the legislative history of P.L. 95-475 makes references. (See,

e.g., Hearing, cited above, pp. 43-45, documenting delays and continued hearings.) In the present case the Commission's Order somewhat resembles the old orders which caused so much delay in that the present Order recites numerous issues encompassing most of the issues that used to be litigated in the old cases, states protestants' contentions and that a hearing is necessary. If protestants raise specific questions about the carriers' submissions, I am not saying that the Commission need not investigate such matters. I am suggesting, however, that the Commission could assist the parties in fashioning their cases for formal litigation efficiently by telling the parties exactly what the Commission's analysis during the 60-day period had indicated and exactly what was wrong or suspect as regards the materials submitted so that the litigating parties could focus on the areas so identified. Otherwise, with so many issues specified for determination in a multi-carrier general rate case, the Commission may be inadvertently continuing the old practices which P.L. 95-475 was supposed to eliminate.*

In order to assist all parties in holding down costs of litigation and meeting the strict statutory time limits in future rate cases, experience in this case demonstrates that the Commission ought to clarify G.O. 11 and its Rule 67 and ought to provide more guidance to put to rest continually reappearing issues of methodology and arguments about whether current data can be used rather than data originally submitted by the carriers with the rate filings. Moreover, the Commission, after having analyzed the carriers' data for 60 days, can help

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* By case law the Commission has emphasized that it will not only narrow issues but will read its Orders narrowly to make sure that unintended, extraneous issues are not litigated, however important the issues may appear to be. See *Trailer Marine Transport Corp.—Proposed General Increase in Rates*, 19 SRR 985, 987-988 (1979), affirmed without opinion by the D.C. Circuit Court of Appeals *sub. nom. Government of the Virgin Islands v. F.M.C.*, January 30, 1981 (unreported).

the parties immeasurably by advising them what was wrong with the original evidence so that all litigating parties can focus on specific evidentiary problem areas rather than having to mount full-blown cases in the dark under issues which merely allege that the carrier's materials were "unreliable" or "speculative."

Whatever the outcome of this particular case, I deem it to be of critical importance to call the Commission's attention to these problems both because such problems have been reappearing in Commission rate cases even since enactment of P.L. 95-475 which was supposed to eliminate such problems and because I have observed in this case that, because of its huge size, the problems have become onerous causing great expense and probable exhaustion on all litigating parties. I now turn to the specific means employed to deal with the problems in this case.

Modern Procedural Techniques Employed to Meet the Problems Posed by the Size of This Case and the Governing Statute

At the outset it was apparent that because of the many issues and parties in this trade-wide investigation every modern administrative technique conducive to rapid development of an evidentiary record would have to be employed. The basic problem, of course, is that P.L. 95-475 requires completion of the "hearing" within 60 days. Considering that there were four carriers and three protestants and the Commission's Bureau of Investigation and Enforcement (BIE) who wished to present their cases within such a short time period and that allowance had to be made for rebuttal evidence and for some discovery so that each party could obtain facts to develop rebuttal testimony on so many issues, I early decided that the old-fashioned trial-type hearing well suited for non-technical accident or murder cases in jury trials could not be followed. As I noted in a number of procedural rulings, modern administrative law encourages develop-

ment of the record by written rather than oral means and strongly encourages abandonment of cross-examination when expert witnesses are involved and credibility or sense perception are not really relevant. I cited numerous authorities in two rulings, served February 9, 1981 (p. 5 n.4) and March 3, 1981 (p. 3 n.2).[7] Moreover, I noted that the legislative history to P.L. 95-475 emphasized the need to utilize written testimony and eliminate cross-examination to the fullest extent possible.

One advantage of such a technique is that the record was developed almost entirely in written form and in gradual states. This enabled myself and the parties to grasp the technical issues on an ongoing basis and to understand the evidentiary record while it was being compiled. The advantage to such a procedure is that the presiding judge can utilize the post-hearing briefs much more rapidly than is possible in the traditional oral, trial-type system of hearings when all too often a baffled judge must await the post-hearing briefs to begin to understand what he had been listening to from a medley of experts spewing forth a barrage of technical mumbo jumbo. In a highly complex and technical rate case in which time is of the essence, as in this case, I found such a technique to be absolutely essential especially considering the fact that my Initial Decision was originally scheduled to be issued only 15 days after the filing of the

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[7] There are too many cases and authorities establishing that trial-type hearings are not always necessary in administrative proceedings and need not be employed in technical cases or unless there are specific issues of adjudicative fact which can only be resolved by means of oral testimony and cross-examination. Many of them are set forth in the footnote references cited in the text of this decision. For a quick reference, however, the reader may wish to consult *American Public Gas Ass'n v. Federal Power Commission*, 498 F.2d 718, 722-723 (D.C. Cir. 1974); 3 Davis, *Administrative Law Treatise* (2d Ed. 1980) §§ 14.1-14.5; Senate Report to P.L. 95-475, pp. 2, 9, 14-15; *United States v. Florida East Coast Railway Co.*, 410 U.S. 224 (1973); Prettyman, *Trial by Agency*, The Va. Law Review Assoc. (1959) pp. 30-35.

last post-hearing brief (since extended 19 days by the Commission in response to my memorandum of May 18) and the fact that I have no law clerks or technical staff advisors assigned to me, in other words, the fact that I must read the record and briefs, digest them, and write my decision entirely on my own. These various benefits derived from the use of written evidence in lieu of trial-type, oral testimony and cross-examination in technical cases has been summarized in McCormick, *Evidence* (2d Ed. 1972) pp. 856, 857. He concludes by stating:

> Properly handled, written procedures should result in a more adequate record being produced in a shorter space of time. McCormick, cited above, p. 857.

Accordingly, the record in this proceeding was developed essentially by having each party present its direct written case on March 10, rebuttal written case on April 10, and written surrebuttal on April 23. Interspersed were four formal prehearing conferences and one informal conference at which time discovery or other pressing matters had to be resolved. At the final conference, it was decided that some limited cross-examination of one expert witness (Mr. Copan, BIE's first expert) would be warranted. Such limited cross-examination conducted by counsel for PRMSA was held on April 29. Thereafter, to accommodate small business persons who could not present written statements or who wished to be heard orally on the islands, oral hearings were held in St. Thomas, U.S. Virgin Islands, on May 4, and in San Juan, Puerto Rico, on May 6, 1981. Nine witnesses appeared in St. Thomas while three testified in San Juan.[8] The formal hearing phase was thence concluded.

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[8] There was a certain amount of difficulty in scheduling these oral hearings on the islands because of pressing time constraints imposed by the statute and because of the attempts, not completely successful, to submit questions to witnesses in advance of the hearings for their preparation for cross-examination. Moreover, the fact that the first two witnesses who testified in St. Thomas were the Gov-

The Evidentiary Record and Post-Hearing Briefs

The evidentiary record that was developed by the techniques described above is massive. It consists of the direct, rebuttal, and surrebuttal written testimony of more than 30 witnesses, mostly experts in their respective fields and amounts to several hundreds of pages in the aggregate. In addition there are three volumes of transcript covering cross-examination of witness Copan and the examination of the witnesses testifying in St. Thomas and San Juan. Incidental exhibits and documents of one type or another were also admitted into evidence. For ready reference, an outline showing these various exhibits and testimony has been compiled and printed as an appendix entitled "Exhibit A" to PRMSA's opening brief, June 1, 1981. The outline comprises seven pages. Following the close of the evidentiary record, six opening and reply briefs were filed many of which were huge. In the aggregate these twelve briefs total many hundreds of pages.

Fundamental Principles of Law Governing Administrative Rate Cases

Because this case involves controversy among so many expert witnesses which I must attempt to resolve although I am without personal technical or legal assistance as I have mentioned and because P.L. 95-475 imposes strict time constraints which disable me from explaining my findings in detail or recalculating financial exhibits consistent with my findings on methodology, I must resort to fundamental principles of law as an aid in determining the many technical issues. These principles establish that rate cases are technically akin to rulemaking proceedings,

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ernor and a Senator rather than small business persons generated some degree of controversy as did the introduction of evidence by PRMSA on the last day of hearing. Appropriate rulings dealing with these problems have been issued. (See PRMSA's Motion to Strike Certain Portions of Testimony of Governor Luis and Senator Williams Denied in Part, and other rulings, June 10, 1981.)

that it is impossible to make precise findings in rate cases, that the burden of proof is merely a preponderance of the evidence rather than a clear and convincing showing, and that expert witnesses, like all other witnesses, must base their testimony upon reliable source data and reasonable, logical thinking if their testimony is to be followed.

Technically, under the Administrative Procedure Act, a rate case is rulemaking rather than adjudication. See APA, 5 U.S.C. 551 (4); *Alaska S. Co. v. F.M.C.*, 356 F.2d 59 (9th Cir. 1966); 2 Davis, *Administrative Law* (2d Ed. 1979) pp. 5, 322-323. Although modern case law seems to recognize that cases such as the present one may not be pure rulemaking since there is a possibility of retroactive refund on a finding of unjustness and unreasonableness and the old rule permitting ex parte discussions in such cases is not quite free of doubt, nevertheless there are many elements of rulemaking in the present case. I mention this fact because it is obvious that the methodology issues in the case could have been resolved by means of rulemaking, specifically by a proceeding amending G.O. 11 when the Commission would have the benefit of adequate time to consider the many comments on the matters in question rather than having to hurry through to decision in the midst of vigorous adversariness under P.L. 95-475. I have, however, previously recommended that G.O. 11 be revised and clarified.

Of greater immediate significance to any judge trying to decide the many technical issues are other principles of law that recognize that it is impossible to make precise findings in rate cases and that all that is expected of any party attempting to justify its position is to show the validity of that position by a preponderance of the evidence. As many parties have continually shown by citation of many cases, "ratemaking is not an exact science," and only a reasonable approximation is required. Among the many cases in which this basic principle has been recognized are the following: *Increased Rates on Sugar*,

7 F.M.C. 404, 411 (1962); *Alcoa Steamship Company—General Increase in Rates in the Atlantic Gulf Puerto Rico Trade*, 9 F.M.C. 220, 231 (1966); *Investigation of Increased Sugar Rates*, 9 F.M.C. 326, 330 (1966); *Sea-Land Service, Inc.—Increase in Rates in the U.S. Pacific Coast/Puerto Rico Trade*, 15 F.M.C. 4, 9-10 (1971); *TMT Corp.—Rates*, 19 SRR 177, 187-188 (I.D. 1979; FMC May 16, 1979); *Matson Navigation Co.—Bunker Surcharge*, 19 SRR 1065 (1979). The Supreme Court has also recognized that pinpointing is not feasible in ratemaking and therefore a "zone of reasonableness" should be employed, stating:

> Statutory reasonableness is an abstract quality represented by an area rather than a pinpoint. It allows a substantial spread between what is unreasonable because too low and what is unreasonable because too high. *FPC v. Conway Corp.*, 426 U.S. 271, 278 (1976), cited in *Communications Satellite Corp. v. F.C.C.*, 611 F.2d 883, 892 (D.C. Cir. 1977).

In a similar vein the Supreme Court has stated:

> What will constitute a fair return in a given case is not capable of exact mathematical demonstration . . . *United Railways & Elec. Co. v. West*, 280 U.S. 234, 249, 251 (1930).

Moreover, the courts have been tolerant when agencies have employed methodologies that admittedly contain infirmities, stating that "it is the result reached not the method employed which is controlling" and "[i]t is not theory but the impact of the rate order which counts" and "[t]he fact that the method employed to reach that result may contain infirmities is not then important." *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 602 (1944).[9]

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[9] The *Hope* case is a leading case constantly cited on rate of return questions. The quotations, of course, refer to a court's review standards as to what satisfies a reviewing court when reading an agency's decision. The quotation, however, seems to me to involve

A further indication that precision cannot be attained in rate cases is shown by the comments of protestant DTPTC in its opening brief. This protestant has made an earnest appeal to me and to the Commission to amend its regulation in various ways by developing formulae to determine cost escalations, by defining reference groups and time periods for use in the comparable earnings test, and by abandoning the continual *ad hoc* guesstimates of revenue and cargo projections that haunt every Commission rate case, etc. (See DTPTC Opening Brief, pp. 2-6.) Protestant does not agree with respondent PRMSA's evidence on rate of return or revenue projections in this case. However, protestant realistically acknowledged when urging procedural reforms for future cases: [10]

> First, it is clearly impossible for any carrier regulated by the Commission, or any other business for that matter, to predict its future revenues and volumes precisely. There are simply too many unknowns and none of us has a crystal ball. (DTPTC opening brief, p. 2.)

The next principle of law that I find relevant to my decision concerns the fact that a party having the burden of proof in an administrative proceeding need only prove its case by a preponderance of the evidence and is not required to prove its case by making a clear and convincing showing. The lesser standard of proof has been the

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circular reasoning. How can one judge the reasonableness of a method by its "total effect" or "results" if those results or effects are determined reasonable by the very method employed? By what independent means can we know if the results or the method is reasonable?

[10] This quotation is not used to demean protestant's case or to prejudice its position in which it has very emphatically disagreed with PRMSA's projections and presented its own evidence and arguments most forcefully. The quotation shows concern for future cases and conforms with my own views in that regard.

normal standard employed in administrative proceedings for years. Recently, however, the Supreme Court has confirmed its use even in fraud-type cases involving regulated licensed brokers. See *Steadman v. S.E.C.*, No. 79-1266, —— U.S. —— (February 25, 1981); *Sea Island Broadcasting Corp. v. F.C.C.*, 627 F.2d 240, 243 (D.C. Cir. 1980); McCormick, *Evidence*, cited above (2d Ed. 1972), p. 853. This principle is important since the respondent carriers have the statutory burden of proof on most of the issues set forth in the Commission's Orders and I must determine whether their estimates and projections are reasonable and valid under such standard. This does not mean, however, that carriers can sustain their burden by a preponderance of speculative and unreliable evidence. As the Commission has stated in another type of crystal ball-gazing case involving predictions of the future effects of an anticompetitive agreement under section 15 of the Shipping Act, the Commission is "only able to decide cases on the evidence of existing facts and the reasonable deductions to be drawn therefrom and not on 'speculative possibilities.'" *Alcoa S.S. Co. Inc. v. Cia Anonima Venezolana*, 7 F.M.C. 345, 361 (1962), citing *West Coast Line, Inc. et al. v. Grace Line, Inc. et al.*, 3 F.M.B. 586, 595 (1961). (In the cited case, the Commission refused to find the contentions of protestants to be valid notwithstanding protestants' arguments that there was a "reasonable possibility" of harmful effects if the agreements in question were approved. *Id.*)

Finally, since the present case involves the conflicting testimony of many expert witnesses, all well qualified in their respective fields, it is well to consider the principle that their testimony, like that of lay witnesses, is subject to scrutiny and must show that it is based on reliable data, is reasonable and logical in its reasoning, and is not riddled with errors or inconsistencies. See the enlightening discussion of Judge Biunno in *United States v. R. J. Reynolds Tobacco Company, et al.*, 416 F. Supp. 316, 323-

325 (D.N.J. 1976). In that case the court rejected the Government's major expert witnesses's testimony, finding it based on unproven assumptions and unreliable methodology, factual ignorance of the subject matter, use of wrong figures, and other errors. The Court concluded that "[t]his sort of evidence from an expert witness carries such a large risk of misleading the finder of fact as to require that it be rejected as unreliable and hence not credible. See, for example, "How to Lie with Statistics," by Darrel Huff (W. W. Norton & Co., Inc. 1954) . . ." *Id.* The Court further opined that "[o]pinions are valuless as evidence without exploration of the underlying facts and rationale showing the path from the facts to the opinion." *Id.* (Interestingly, however, the Court makes mention of the fact that it utilized Federal Rule 706 to name an independent expert witness on whom the Court relied, a device which I wish had been available to me.)[11]

In *United States et al. v. F.C.C.*, D.C. Cir. Nos. 77-1249, 77-1252, 77-1253, decided *en banc*, March 7, 1980, —— F.2d ——, the Court expressed opinions on the use of expert witnesses in speculative areas and also recognized that agencies must be free to utilize some degree of expertise when making predictions in industries they regulate even when hard facts are difficult to obtain. The Court refused to require the F.C.C. to hold evidentiary

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[11] McCormick, *Evidence*, cited above, pp. 37-41, has an interesting discussion on ways in which the courts can deal with the "battle of experts," for example, by having the experts meet in conferences to seek agreement, use of impartial experts to assist the court, etc. Compare Federal Rule 706 authorizing the court to appoint its own expert. In this case, lacking such authority and lacking a personal technical assistant or law clerk, the discussion by McCormick regarding practical difficulties affecting judges in technical cases is especially meaningful to me. To some extent, as I discuss below, I have turned to the staff experts who have testified in this proceeding on the theory that they should be relatively free from bias although, of course, staff expert testimony must also be carefully scrutinized for errors, faulty reasoning, etc., as Judge Biunno stated.

hearings to hear the testimony of experts which would involve speculation in a constantly changing industry. The Court stated:

> But the FCC's decision cannot be based on competitive conditions "at any given time;" it must be based on a reasonable prediction of future conditions. The FCC has concluded that the attempt to resolve these speculative matters through adversary proceedings would be futile. We believe that conclusion is reasonable. Slip opinion, p. 45.

The opinion in the cited case is well worth studying since it provides much guidance for a case such as the present one, especially concerning the practical difficulties of making predictions in a volatile industrial environment (e.g., the cost of fuel during the carriers' pro forma projected years), the need for the agency to rely on its own experience if hard facts are unobtainable, and the unsuitability of adversary proceedings in what is essentially crystal ball-gazing.

The Specific Issues Ordered to be Determined

Armed with all of the above ammunition, I am now prepared to embark upon the hazardous course of trying to resolve the many technical issues. Having read the hundreds of pages of briefs which demonstrate zealous advocacy by capable counsel, I believe that anyone entering into this maelstrom runs the risk of enduring not only attack but even perhaps name-calling. Since it is impossible, furthermore, to find hard facts and to make precise predictions or findings in rate cases, as I have explained above, anyone's findings or predictions are open to second guessing, including this judge's. I have no technical staff assisting me, as I have explained, nor even a law clerk. However, I have studied the record and the massive briefs and am guided by the basic legal principles recited above. Furthermore, to the extent possible, I rely upon what little Commission precedent is available

from an unclear G.O. 11 and previous decisions and, if the BIE's staff experts' testimony passes scrutiny, I tend to turn to it first since these witnesses, in theory at least, should be free from any tendency to favor one side or the other, i.e., free from bias. (This reliance on staff experts, however, is limited because, as protestants have noted, the BIE essentially limited its contribution to certain issues, e.g., rate of return, inflation factor to be employed, and use of current or more recent data.)[13]

Because of the massive size of the record and the briefs and the strict time constraints imposed on me by P.L. 95-475, which, thanks to the Commission's response to my memorandum of May 18, 1981, gives me 35 calendar days to read, analyze, write, and have typed and printed my decision without assistance except for the briefs, I have allocated much time to study of the briefs and record to enable me to understand the complex technical issues. Accordingly, I have not had the luxury of ample time to write such explanations as I would normally have done in a case of this size absent time restrictions and have had to rely on adopting portions of briefs which I have found persuasive where such is possible as a time-saving device. There is nothing in the Administrative

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[13] As I will mention, I find that the staff experts' testimony to be of high quality and generally reliable when the staff had the witnesses to testify. However, the staff gave limited evidence on operational issues and confined themselves in several instances to verifying whether the carrier complied with G.O. 11. (See GVI/PRMA Opening Brief, p. 17 n. 8.) I sorely missed staff testimony on the other issues and hope that the Commission will provide the staff with the facilities to offer substantive testimony on all issues, not merely those relating to accounting and statistics. This would be consistent with the Commission's direction in Docket No. 75-38, *PRMSA—General Increase in Rates*, 18 SRR 469, 476 (1978), where the Commission defined Hearing Counsel's (BIE's predecessor) role as one in which they would furnish evidence on all the issues. Since I have no technical staff, the furnishing of more complete evidence on all issues by staff expert witnesses would have been of great value to me.

Procedure Act, of which I am aware, however, which requires me to rewrite every proposed finding or argument or even to make findings on every argument presented. See, e.g., *Adel International Development Inc. v. PRMSA*, 20 SRR 687, 690 (1980).[18] Moreover, even summary findings of fact and conclusions may suffice if the path being followed can be discerned and the findings are not vague or obscure. See, e.g., *Colorado Interstate Gas Co. v. Federal Power Commission*, 324 U.S. 581 (1945); *Minneapolis & St. Louis Ry. Co. v. United States*, 361 U.S. 173 (1959) (I.C.C. had not made express findings but its opinion showed that it had considered and discussed the issues intelligibly); *Borek Motor Sales, Inc. v. NLRB*, 425 F.2d 677 (7th Cir. 1970) (similar); *Gilbertville Trucking Co. v. United States*, 196 F. Supp. 351, 359 (D. Mass. 1961) modified on other grounds, 371 U.S. 115 (1962) (need to furnish the parties with a sufficiently clear basis for understanding the premises used by the tribunal in preparing its conclusion of law, adjudications, and orders).

The Rate of Return Issue

The first issue framed by the Commission's Order of January 29, 1981, is:

> (1) What is an appropriate rate of return for the carriers named as Respondents? In addressing this question consideration should be given to the average rate of return earned by other U.S. corporations and the inherent risks, if any, in operating in the affected trades.

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[18] As the Commission stated in the case cited:

> It is not necessary to make findings of fact upon all items of evidence submitted nor even necessarily to answer each and every contention made by the contestants to the hearing but rather to make findings which are sufficient to resolve the material issues. 20 SRR at p. 690.

This type of issue would have been a perfect subject for rulemaking, specifically, a rulemaking proceeding to amend G.O. 11. Because G.O. 11 is itself not fully informative and because the comparable earnings standard itself has deficiencies and uncertainties, the record contains different opinions by a half dozen expert witnesses on this question.

Effective March 28, 1980, the Commission promulgated its revised G.O. 11. See Docket No. 78-46, General Order 11, Revised, slip opinion, January 14, 1980, 19 SRR 1283. Among other things, the Commission adopted the so-called "comparable earnings" test to determine reasonableness of carriers' rates of return. The Commission stated:

> [t]he Commission intends to continue to test the reasonableness of a carrier's rates based on a "comparable earnings analysis" which will utilize as its benchmark the rate of return on total capital earned by comparable U.S. corporations. The Commission will not limit the comparable earnings analysis to firms in the same geographic region. There will be some cases in which the Commission will consider a predetermined hypothetical capital structure to determine financial risk. Slip opinion, p. 65.

After rejecting alternative tests such as "opportunity cost," the Commission stated:

> Therefore, the Commission has determined to retain the comparable earnings test in its final rules so as to account for, *inter alia*, various sources of financing and differences in risk in judging the reasonableness of a carrier's rates. *Id.*, p. 67.

This is, of course, not the place to challenge the Commission's choice of the comparable earnings test. As some authorities have pointed out, however, this test is considered secondary while a cost of capital or capital attraction test has been preferred. See James C. Bonbright, *Principles of Public Utility Rates* (Columbia University

Press, 1981), p. 257; Phillips, *The Economics of Regulation* (Richard D. Irwin, Inc. 1965), p. 298.

I do not have the time to write a treatise on the two tests, how they developed, or how the courts deal with them. I can only define them briefly and refer the reader to the authorities cited for a complete discussion.

Briefly, for ready reference, one authority defines the two tests as follows:

> First, the "cost of capital" standard, under which the rate of return should enable a company to attract capital on terms that will (a) maintain its credit standing, (b) protect its financial soundness, and (c) maintain the integrity of its existing investment. Second, the "comparability of earnings" standard, under which the rate of return to equity owners "should be commensurate with returns on investments in other enterprises having corresponding risks." Phillips, cited above, p. 268.

Another authority defines the two tests as follows:

> Two tests of a fair rate of return have been mentioned in court decisions. These are the "comparable earnings" test and the "attraction of capital" or "maintenance of credit" test. Both of these were stated by the Supreme Court of the United States in the Bluefields case. The "comparable earnings" test was indicated in the following language: "A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures." The "attraction of capital" test found expression as follows: "The return should be reasonably sufficient to assure confi-

> dence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties." Both of these tests require further comment.[14]

Protestants GVI/PRMA have concisely shown how the test has been formulated and how it is one of the two basic tests and how the courts have employed both, although the cost of capital test is perhaps considered the primary test. To quote from their Reply Brief, pp. 31-32:

> The formulation as set out in the universally-cited genesis of the comparable earnings test is the following passage from the *Bluefield Waterworks* decision [262 U.S. 679, 692—93 (192):
>
> > A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting

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[14] Locklin, *Economics of Transportation* (Richard D. Irwin, Inc. 1972, 7th Ed.) p. 394. (Footnote citations in the quoted passage omitted.)

opportunities for investment, the money market and business conditions generally.

As Bonbright notes in his discussion of the Court's formulation of the comparable earnings standard in *Bluefield* and, later *Hope Natural Gas* [J. Bonbright, *Principles of Public Utility Rates*, 257-58 (1961) (emphasis added)]:

> Here, as in the *Hope* case, are suggested not just one standard of a fair rate of return but two. In the first place, the rate must be equal to that currently earned on 'investments' in other equally risky business enterprises. But, in the second place, it must also suffice to maintain the credit and the capital-attracting ability of the very company whose case is at bar. And the question arises what should be done in the likely event that the rate indicated by the one test is higher or lower than the rate indicated by the other. A severely literal construction of the *Bluefield* opinion would seem to require the acceptance of whichever rate of return happens to be higher in any given case. But this interpretation would run so contrary to common sense that it has not won acceptance.
>
> Faced with this problem of judicial interpretation, my own preferred interpretation has been that the courts have not intended to set up two conflicting standards of reasonable utility rates. *Instead, the credit-maintenance or capital-attraction standard is primary, while the comparable-risk standard is secondary and ancillary. That is to say, the fair rate of return is a rate, the allowance of which will permit the company in question to support its credit and to raise required supplies of new equity capital on terms fair to the old investors; but this rate is necessarily related to the rates of return that investors, while still free to commit their capital*

on the competitive market, could expect to secure on investments in enterprises of comparable reputed risk.

As I have discussed above, Congress intended that the Commission issue, substantive guidelines for determining rate of return questions and intended, furthermore, that the Commission revise these guidelines from time to time. It is extremely important, however, to understand that these guidelines (present in G.O. 11 revised) are intended to have substantive, i.e., precedential effect, and are not merely suggestions. Otherwise the same issues keep getting litigated in case after case. G.O. 11, of course, has not selected the first test, i.e., "cost of capital," "capital attraction" or sometimes called the "maintenance of credit" test.

It is important to bear in mind that the Commission has chosen "comparable earnings" rather than the other test and that the choice must be followed unless or until G.O. 11 is revised by the Commission. This is important because, in my opinion, a good deal of certain experts' evidence seems irrelevant to the "comparable earnings" test or interprets that test to mean that no upward adjustment may be made in consideration of peculiar risks of respondent carriers.

Having made the choice of the "comparable earnings" test, we must now live with it in this case and deal as best we can with its deficiencies. (I might add that the other test, i.e., cost of capital, has also been criticized for several reasons, e.g., use of earnings-price ratios, circular reasoning, reliance on investors' anticipation. See Locklin, cited above, pp. 397-398.) The authorities recognize problems with the "comparable earnings" test, problems which have become terribly obvious in this case. The main problems concern the selection of the reference group of "comparable" industries, the time period utilized in the selection, and how one is to determine whether there is an adjustment necessary for risk, current trends, or other such factors. See, e.g., Locklin, *Economics of*

Transportation, cited above, p. 394; Phillips, *The Economics of Regulation*, cited above, pp. 297-303; Welch, *Cases and Text on Public Utility Regulation* (Public Utilities Reports, Inc. 1968, rev. ed.), pp. 488-489. In previous Commission decisions which I have had time to read, it appears that different source materials have been used showing different companies or industries, that adjustments were made for risks and other factors, and that a period of time over one year was selected for the comparison. As a guide to the problems in this case, the following table will show at a glance how the various expert witnesses differed in their final recommendations, how they selected different groups of industries for comparison purposes, how they used different time periods, how they made adjustments, and for what factors such adjustments were made. It will be seen that, not surprisingly, the range of recommended or allowable rates of return runs from a low of 13.5 percent from witness Ileo testifying on behalf of protestant DTPTC to a high of 23.5 percent as an allowable target proposed by witness Nadel on behalf of respondent carriers Sea-Land and TMT/GCML. It will also be seen that at least four different reference groups of companies or industries were used, namely Federal Trade Commission Quarterly Financial Reports (FTC-QFR) used by three expert witnesses, Standard & Poor's 400 Industrials, Value Line, and a special selected group of utilities and motor carriers used by one witness. Time periods for comparison vary from less than one year to six or more years in the past. Upward adjustments to benchmark figures derived from the reference group vary also, some experts making adjustments for current trends, business and financial risks, while others limited adjustments to embedded costs differentials or other factors.

The table illustrates a few basic points which I have previously mentioned. First, that the uncertainty of G.O. 11 and the "comparable earnings" test permit wide disagreement among well qualified experts. Second, that a precise mathematical determination of a single reason-

able rate of return is not feasible. As Dr. Germane, one of TMT/GCML's experts, stated (Surrebuttal-Germane, p. 9):

> None of the methodologies used by any of the parties to this proceeding are likely to provide the single "appropriate" rate of return. They are all based on assumptions and judgments with respect to risk, capital costs and other critical determinants of an appropriate return.

I also agree with Dr. Nadel, another expert sponsored by Sea-Land and TMT/GCML, who stated:

> In summary, I agree with Dr. Germane, as apparently does Mr. Copan, that the "question of comparability can never be resolved clearly." (Surrebuttal-Nadel, p. 7).

Because of these views and those I have discussed earlier in this decision regarding impossibility of precision in cases of this type, the imperfect nature of measuring techniques, and unclear Commission precedent, I believe that the most reasonable approximation of a fair rate of return would be a zone of reasonableness rather than a single fixed number, provided that the record would furnish sufficiently reliable and probative evidence so that a zone could be determined. However, after studying the recommendations of the six expert witnesses who all reach different conclusions, as summarized in the table below, it is apparent that there is neither no single number that I can rely upon nor is there anything but a vague range that I can presently ascertain. Unfortunately once again time constraints do not permit me to discuss the many problems that the record presents in the detail that such problems deserve and I can only touch upon the highlights. As will become apparent, however, the incomplete guidance provided by General Order 11, the extremely difficult problem of dealing with PRMSA, a tax-exempt company, and the fact that the various expert witnesses were compelled to turn to a variety of published financial sources which do not tabulate their information to suit

the terminology of General Order 11, all play significant roles in disabling the experts or myself from singling out any one number with assurance as the one-and-only reasonable rate of return. As will become further apparent, all of the expert witnesses' testimony contained flaws of one type or another, some so serious that I have to reject their recommendations almost summarily. Furthermore, even in the case of the more moderate recommendations which fall in the center of the table below (such as Mr. Copan's 16-17 percent, Dr. Nadel's 18.5 percent before markups, and Dr. Silberman's 19-20 percent for PRMSA) each of them have infirmities which I will briefly describe. However, unless the Commission seeks a degree of precision that the law does not expect in rate cases, somewhere among these witnesses a reasonable range or approximation must be deduced. Otherwise all of the testimony would have to be rejected and the Commission would have no answer to its first question, i.e., "what is an appropriate rate of return. . . ." As I indicate below, the best approximation that I believe the present record can offer is somewhere above the 16-17 percent recommended by Mr. Copan to somewhere around 18 percent, the latter figure more relevant to PRMSA than to the other three respondent carriers. (Since various calculations and corrections to pro forma exhibits performed by the carriers and BIE show that they fall under or within the range per carrier, respondent carriers except, in certain respects, TMT, as I later discuss, have shown that the general rate increases under investigation are not excessive.) If, however, the Commission believes that a single-number rate of return must be picked despite the imprecision of the rate-of-return measuring techniques, I would have recommended those numbers put forth by BIE's witness, Copan, but for a significant omission in one of the critical elements in his formula, which should be explained on exceptions. Before discussing the various recommendations, I present the following table summarizing the expert witnesses' methodologies:

TABLE OF RECOMMENDED ALLOWABLE RATES OF RETURN

PNMA	13.5 or 13.2% (Ileo)	15% (Brennan)	17% (Copas)	19-20% (Silberman)	21.29% (Germana)	23.5% (Nadel)
SL			16%		20.26%	23.5%
TNT			16%		17.14%	23.5%
GCML			17%		17.14%	23.5%

Methodology-Reference Groups Plus Add-ons for Risk, etc.

Ileo	Brennan	Copas	Silberman	Germana	Nadel
FTC-QFR (mfg.) 1980 - 3 qtrs. 1980-est. 4th qtr.	S&P 400 diversified industrials 1975-9	FTC-QFR (mfg.) 1974-9	FTC-QFR (mining, mfg., retailing) 1978-80	Selected group (elec. utilities & motor carriers)	Value Line (36 industries; 717 companies) 13.93% median in 1979
11.5% benchmark + 2% (embedded cost differential)	12.97% benchmark + 2.03% (inflation, current cost, etc.)	12.5% benchmark + 2% (current trends) 1.5-2.5% (business & financial risks)	16.68% benchmark + 3% approx. (business risk)	14.65% - 18.20% benchmarks + 1.17 X (risks premium)	18.5% benchmark (after add on interest and inflation for 1981) + 2% (for bad years) + 3% (for past shortfall)

A very good objective description of the methods used by each of these expert witnesses is provided by protestants GVI/PRMA in their opening brief, pp. 140-182. For the primary source, of course, the reader should consult the briefs of the party that sponsored the witness. However, protestants' counsel has done a commendable job in summarizing the various experts' testimony, saving me much time.[15]

At the outset I find that the extremes represented by Dr. Ileo (13.5 or 13.2 percent, as revised in his rebuttal testimony), the 23.5 percent by Dr. Nadel and 21.2 percent (for PRMSA) by Dr. Germane to be just that, extremes, which I do not find persuasive in comparison with the other more central and moderate studies. Dr. Ileo, testifying on behalf of protestant DTPTC would understandably be recommending a lower rate of return but his low points seem off the scale of reasonableness. However, I do not find them unpersuasive merely because they are so low. As other parties have cogently shown (see PRMSA's opening brief, pp. 57-62) Dr. Ileo's methodology is faulty. Essentially he relies on a relatively brief period of time for comparison (less than one year), uses a bad business year for a basis of comparison (1980), makes an adjustment for PRMSA's risk based on embedded cost differentials from unlocatable sources

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[15] Although I obviously am disagreeing with counsel on many issues, I must take this opportunity to commend counsel for the high quality of briefwriting generally and the tremendous efforts put into the opening and reply briefs. Counsel for GVI/PRMA wrote 262 pages on opening brief and 122 pages on reply brief in a very short space of time. Counsel for PRMSA wrote 177 pages on opening brief and 111 on reply. Other counsel generally contributed sizeable briefs, also well crafted and argued, and some almost as long, e.g., BIE's opening brief was 88 pages. I do not mean to encourage mammoth briefs since they are obviously burdensome but I understand, in an expedited proceeding, how they arose and I commend counsel for their diligence even though I fully realize that I may be blasted on exceptions. Length, however, does not necessarily connote quality.

and fails to consider tax consequences, thereby understating PRMSA's risk differential. His results allow PRMSA only a very thin margin over PRMSA's huge debt ($24 million in interest annually).

On the other end, I find Dr. Nadel's target rate of return of 23.5 percent to be based on faulty and unprecedented methodology because he wants to award premiums to offset past bad years and past inabilities of carriers to reach allowable rates of return. A good summary of Dr. Nadel's faults is contained in protestant GVI/PRMA's opening brief, pp. 219-227. While I do not agree with much of protestants' criticisms of Dr. Nadel in other respects, I do agree that Dr. Nadel's adjustment upward in the amount of 2 percent and another 3 percent to offset bad business years since the 1960s and past shortfalls in revenue are unprecedented and contrary to case law.[16] I find his net rate of return (18.5 percent) to be a reasonable alternative to the BIE's witness Copan if one considers that he attempted to derive a true comparable group of companies and eliminate the need for upward adjustments to benchmark figures for risks. I will return to Dr. Nadel later. (He also makes note of the fact that carriers in the Puerto Rican trade just do not make much profit, showing that during the period 1975-1979 their aggregate returns were, as weighted, an average of 3.52 percent, and, most recently, only 7.1 percent (D-Nadel, p. 29).) It is tempting to stop right here and stop pretending that a rate of return of 16 to 18.5 percent is realistically possible and drop what appears to be an academic exercise not related to the real world. Not only do the carriers in the trade not seem to

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[16] See *Galveston Elec. Co. v. Galveston*, 258 U.S. 388, 395 (1922); *FPC v. Tennessee Gas Transmission Co.*, 371 U.S. 145, 153 (1962); *Government of Guam v. F.M.C.*, 365 F.2d 515, 519 (D.C. Cir. 1966), cited in protestants GVI/PRMA opening brief, p. 226 n. 70. See also *Communications Satellite Corp. v. F.C.C.*, 611 F.2d 883, 894 (D.C. Cir. 1977).

be doing very well, and even protestants do not generally resist some rate increase as being reasonable for them, but they almost never seem to have. Cf. the last general trade-wide investigation in Docket No. 71-30, etc., cited above, 14 SRR 645 (1974), when it was shown by the G.O. 11 filings that the carriers lost an aggregate of $14 million. For similar evaluation, see Dr. Germane's testimony (D-Germane, p. 13).

Getting closer to the center of the table, I find Dr. Germane's recommendations of 21.2 percent for PRMSA and 20.26 percent for Sea-Land to be too high and even though his other two recommendations (17.14 percent for TMT/GCML) are within a zone of reasonableness, I find Dr. Germane's methodology to be less persuasive and reliable than that of BIE's witness Copan or Dr. Nadel once the latter's two premium factors are disregarded. Although impressive in certain areas, my main problem with Dr. Germane is his use of the cost-of-capital test to determine benchmark rates of return before applying his various risk factors. Although stressing more risk factors than may be necessary, Dr. Germane's quantitative tests for risk do not appear to be invalid in theory. The real problem, however, is that he utilized a test that the Commission has not selected when ascertaining a benchmark rate of return, namely, cost of-capital. Secondly, he relied upon a narrow, selective reference group (regulated motor carriers and utilities). See GVI/PRMA opening brief, pp. 153-156; 216-219. BIE also argues correctly that Dr. Germane (and another witness not shown on the table, Mr. Haesemeyer, sponsored by TMT/GCML) utilized the cost-of-capital test rather than comparable earnings to determine the benchmark rate of return before adding risk factors. BIE reply brief, pp. 2-5. BIE correctly points out that the Commission deliberately avoided the cost-of-capital approach as seen by the Commission's discussion of the problems in determining debt-equity ratios, a typical

problem with the cost-of-capital approach. See Docket No. 78-46, 19 SRR at 1308-1309.

Interestingly, as BIE notes in their reply brief (p. 2) TMT/GCML seem to have acknowledged that BIE witness Copan correctly followed G.O. 11 methodology most closely although they suggested that their approach was a useful alternative. Of course, the Commission has already decided against such an alternative in the cited rulemaking proceeding.

The major battle in this hectic case has been that between PRMSA, the leading carrier and its witness, Dr. Silberman, and GVI/PRMA and its leading witness, Mr. Joseph F. Brennan. I have serious problems with Mr. Brennan's approach, namely, his heavy orientation toward utilities, money market, and cost-of-capital tests rather than ocean common carriers and comparable earnings, the idea that his reference group may have already included "premiums" so that no separate risk adjustment is necessary, and the idea espoused by GVI/PRMA that the "comparable earnings" test is supposed to be a maximum without upward adjustment for any risk. I have equally difficult problems with Dr. Silberman's work.

Previous Commission decisions, Docket No. 78-46, and the Order in this case seem clearly to contemplate that once a benchmark rate of return is determined from a reference group, an upward adjustment for peculiar risks to the carriers should be made. True, G.O. 11 states that an adjustment for risk shall be made "where appropriate." See 46 CFR 512.6(d), Docket No. 78-46, slip opinion, p. 26, rules section. However, the authorities cited above associate comparable earnings with determination of risk factors. As Phillips states (Phillips, *The Economics of Regulation*), cited above, p. 297: "The crucial element in the 'comparable earnings' standard is the measurement of risk." See also Welch, *Cases and Text on Public Utility Regulation*, cited above, pp. 488-489. The definition of the "comparable earnings" test as seen

in the *Bluefield* case, cited above, contemplated a comparison with "other business undertakings which are attended by corresponding risks." 262 U.S. at 692-693. One could infer that ideally a group of comparable industries was supposed to be selected that was so comparable to the regulated company that no adjustment for risk would be necessary. However, the Commission has continually adjusted for risk as have other agencies because the reference group that is so comparable is very difficult to find. Thus, in Docket No. 78-46, the Commission specifically stated that in retaining the "comparable earnings" test, the Commission would account for, among other things, "differences in risk in judging the reasonableness of a carrier's rates." Docket No. 78-46, slip opinion, p. 67. Compare also the fact that regulatory commissions normally utilize wide varieties of reference groups for comparison purposes, e.g., broad groups of industrials, utilities, railroads. See Phillips, cited above, p. 299 n. 128.[17] In previous Commission rate cases, comparisons with broad groups has been sanctioned. In *TMT Corp.—General Increase in Rates*, cited above, 19 SRR at 653, a large group of non-financial companies reported by Citibank was used. In Docket No. 79-47, *Sea-Land Service, Inc.—Proposed Five Percent GRI in Six P.R. and V.I. Trades*, 19 SRR 669 (I.D.; F.M.C. Sept. 19, 1979), comparison with industries analyzed by Standard and Poors, including airlines, common carrier trucking, and total transportation, was used. See also *PRMSA—General Increase in Rates*, 18 SRR 794, 800 (I.D. 1978); *Matson Navigation Co.—Rate Increases*, 18 SRR 1351, 1354 (1978); 18 SRR 1441, 1445 (1978). In the Order instituting this case, the Commission stated:

> In addressing this issue [i.e. rate of return] the Commission generally takes into account: (a) the

[17] As this reference shows, in the leading case, *FPC v. Hope*, broad groups were used for comparison purposes. Also, even though the reference group is supposed to be "truly comparable," adjustment for individual risk is apparently still allowed.

> average rate of return earned by U.S. corporations, and (b) the risks faced by the individual carrier that may warrant a different rate of return. This analysis must also necessarily consider the group of U.S. corporations that should be used to derive an average, the time span examined in this regard and the criteria to be applied in determining whether a risk factor adjustment should be made, and, if so, the degree of such an adjustment. Such an inquiry will be made in this case. Order, p. 5.

Elsewhere, the Commission specifically recognized that there may be risk adjustments necessary under the "comparable earnings" test, stating:

> While carriers are as a general matter entitled to the average rate of return earned by U.S. corporations, when, as in this case, consideration is given to allowing rates of return exceeding a national average because of the particular risks facing the carriers in serving a trade. . . . Order, p. 6.

In short, the practice of making adjustments for risk and in this Commission, upward adjustments after reference group bench-marks have been ascertained, seems firmly embedded. Mr. Brennan, however, would make no such adjustments. He would not do so because he or his counsel apparently believes that his group of Standard and Poors 400 industrials have already been given a premium for risk and because, as his counsel argues on brief, in a new rationale not previously discussed by Mr. Brennan, the "comparable earnings" test was originated in 1923 when the utilities were a less risky group than the reference group. Therefore, the test is a maximum, i.e., when the reference group's average return is determined, there can be no upward adjustment for risk for the regulated company since the reference group is already more risky by definition. Even if reference groups are or were at one time more risky than a regulated company in 1923, according to GVI/PRMA's contentions,

the evidence in this case strongly suggests that the four carriers are riskier than reference groups today. Witnesses Copan, Silberman, and Germane have made various risk findings and adjustments upward to account for greater risk which these carriers are running. Indeed, even when Mr. Brennan attempted to point out several factors which convinced him that the carriers were less risky compared with utilities, Mr. Copan showed that the factors pointed to the opposite conclusion. (See Brennan's rebuttal testimony, pp. 20-21 compared with Copan's surrebuttal testimony, pp. 22-25.)[18] In previous rate cases before this Commission risk adjustments have customarily been made. See, e.g., *TMT Corp.—General Increase in Rates*, 19 SRR at 654. Nevertheless witness Brennan makes no risk adjustments at all. (Sea-Land's and TMT/GCCL's witness, Dr. Nadel, also made no risk adjustment but did so because he selected a reference group that, in his opinion, would be truly comparable based on several enumerated criteria.)

The reason why Mr. Brennan will make no upward adjustment to his benchmark rate of return of 15 percent relates apparently to his fundamental grounding in utility, money market and cost-of-capital principles. Mr. Brennan is presenting ideas to this Commission which were not presented in the proceeding leading to the formulation of General Order 11 (Docket No. 78-46) as far as I can determine, nor does that regulation or any Commission rate case of which I am aware find his theories relevant. Even if I did not agree that, as PRMSA pointed out, Mr. Brennan has taken what appears to be an inconsistent position in certain respects in a Pennsylvania utility rate case, I find that there are

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[18] GVI/PRMA's attempts to persuade me that utilities such as AT&T are more risky than PRMSA seem very strained and the argument is very hard to swallow. As the court stated in *Communications Satellite Corp. v. F.C.C.*, 611 F.2d at 910: "As for the present [1977] it is a truism that AT&T generally is not a risky investment. . . ."

good and sufficient reasons to find that Mr. Brennan's approach is unacceptable in this proceeding. These reasons are well presented in BIE's reply brief, pp. 28-31, in Mr. Copan's rebuttal testimony, pp. 72-75, in Dr. Germane's surrebuttal testimony, pp. 25-33, and in PRMSA's reply brief, pp. 18-24. I have no time to discuss the many points made by these parties and witnesses. Very briefly, however, they show that Mr. Brennan's concern over how the marketplace has already given reference group companies some type of premium to maintain the market value of the companies' assets above book values is irrelevant in Commission rate cases conducted under the comparable-earnings test. Mr. Copan cites several authorities which demonstrate that a market-to-book value analysis is not only irrelevant to this Commission's rate regulation principles but it is dangerous anyway for any regulatory agency to attempt to consider such factors. (See Copan's rebuttal testimony, p. 74, citing Bonbright.) On brief, GVI/PRMA strive valiantly to persuade that there is a fundamental principle in ratemaking that supports Mr. Brennan's irrelevant market-to-book value analysis and that is that a regulatory agency starts from the basic proposition that a regulated company is only entitled to earn a sufficient return to maintain the integrity of its assets, i.e., "to maintain the integrity of its original-cost rate base." (GVI/PRMA reply brief, p. 18.) This sounds appealing as do so many skillful arguments raised by GVI/PRMA in their post-hearing briefs (after all, shouldn't any carrier be able to maintain the integrity of its assets?), but again they do not withstand the particular rebuttal evidence and arguments. As PRMSA, for one, shows (PRMSA's reply brief, pp. 18-24) this whole market-to-book idea is a technique that belongs in a cost-of-equity-capital study, Mr. Brennan continually uses cost-of-capital theories and methods, ultimately shows that he is really disagreeing with the Commission's comparable-earnings test, and the theory appears on brief for a new purpose, namely, to

show that no risk adjustments should be made above Mr. Brennan's reference group benchmark rate of return. As noted in the reference cited above, BIE and Mr. Copan generally agree that Mr. Brennan's theories are irrelevant to the Commission's comparable-earnings test. Furthermore, as PRMSA points out on brief, the theory was advanced to justify Mr. Brennan's refusal to award any factors for risk to PRMSA above that of Mr. Brennan's reference group but that there is no showing of a logical connection between the market-to-book value theory and the determination of risk for a particular carrier. Despite the ingenuity and skill with which GVI/PRMA argue the relevancy of Mr. Brennan's approach and his refusal to award any factors for risk peculiar to PRMSA, I find that Mr. Brennan, for all his novel analyses, seems basically unwilling to live with the Commission's comparable-earnings test nor with the evidence that shows that PRMSA and the other carriers are operating at higher risks than companies in reference groups. I find myself rather in agreement with Dr. Silberman, Mr. Copan, and Dr. Germane that PRMSA's and other carriers' risks are measurably higher than those of the reference groups and that the Commission has indeed recognized the techniques employed in this case to measure risk, especially business risk. See cases cited in PRMSA's reply brief, pp. 10-11, and the discussion refuting Mr. Brennan on the risk issue in PRMSA's reply brief, pp. 3-11. Nor do I agree with GVI/PRMA's arguments on brief criticizing expert witnesses other than their own Mr. Brennan for subjectivity in evaluating risk factors. I think it is clear that every witness is guilty of some degree of subjectivity, including Mr. Brennan. See PRMSA's reply brief, pp. 25-26. Accordingly, I find Mr. Brennan's recommendation of a 15 percent rate of return to be unacceptable.

Having found that the more extreme witnesses on the edge of the table have not been persuasive, I now turn to the more moderate witnesses nearer to the center of the

table to determine if one of them has made a reasonable approximation of a reasonable rate of return. I find again, however, that there is no single perfect exercise performed by any of these witnesses and must recall that the courts permit one to accept a methodology even with infirmities in rate cases since precision is not possible. There are three candidates in the center of the table, Mr. Copan (16 to 17 percent varying with the carrier), Dr. Nadel (as to his 18.5 percent recommendation before his unprecedented markups) and Dr. Silberman (19-20 percent for PRMSA). Of the three I would by far prefer to rely upon Mr. Copan's recommendations (16 percent for Sea-Land and TMT, 17 percent for PRMSA and GCML). If the omission that I mentioned above and will explain can be corrected on exceptions with reliable evidence and if the Commission believes that a single number only should be found to be "appropriate," I would recommend that it adopt Mr. Copan's figures. However, if not adequately explained or if the explanation still leaves some room for flexibility, I would adopt Mr. Copan's recommendations as a minimum with allowance for a range to approximately 18 percent. The reason for this conclusion is briefly as follows:

Mr. Copan, as the Commission's Chief of the Commission's Office of Economic Analysis, is free of any suggestion of bias, considering the position he holds. One would also expect that he would know and understand what kind of comparable earnings study the Commission's General Order 11 envisions. It appears to me that he followed that regulation as closely as one can, given its ambiguities and silence on so many critical points. He made certain subjective adjustments for certain kinds of risk and for the selection of his reference group and time period, but so did everyone else. The main flaw, however, which PRMSA has also noted in connection with Dr. Ileo's testimony, is that Mr. Copan had to estimate a critical figure in the formula which he applied to the FTC-QFR reference group, namely the amount of inter-

est which these FTC companies had to pay, since FTC-QFR reports do not show any such figure. The record does not show how Mr. Copan derived his figure of 7 percent, which appears to be low. (See PRMSA's opening brief, pp. 38-39.) (Dr. Ileo had estimated 9.5 percent, using the FTC-QFR data, and PRMSA's interest cost is estimated at 11.7 percent for its pro forma year.) Mr. Copan apparently estimated that interest would amount to 7 percent of long-term liabilities, the latter figure published in the FTC-QFR reports. (See surrebuttal testimony of Dr. Silberman, p. 23, and Copan's rebuttal testimony. Schedule 3.) Moreover, Mr. Copan apparently estimated 7 percent of long-term debt as interest and apparently used the period 1968-1979. This number is exceedingly important because Mr. Copan's formula (which is also the General Order 11 formula) applied to the FTC reference group is: net income after taxes plus interest divided by long-term debt and stockholders' equity. Obviously, the rate of return derived from the FTC reference group will be too high or too low if the estimate for interest is also too high or too low. If the Commission believes that it should select one rate of return figure per carrier, then I would recommend consideration of Mr. Copan's 16 and 17 percent figures for the various carriers, provided, however, that on exceptions BIE can furnish a satisfactory explanation and evidence which will support the estimated 7 percent figure. Such evidence should indicate the source of the figure, the time period it covers, the comparability of the borrowing institution, company or companies in terms of risk and other relevant factors, and whether the interest figure is depressed or representative of the time period, which should be a relevant period. In other words BIE and Mr. Copan should explain how a secondary figure not published in the FTC-QFR data can reasonably be plugged into the FTC data he used and matched with such data to produce a reliable rate-of-return benchmark figure before making adjustments for risks peculiar to

the four respondent carriers. Even if so explained and justified, that 7 percent figure must remain a "plug-in," therefore introducing an additional element of imprecision into Mr. Copan's work and undermining any contention that any single rate-of-return number is the be-all and end-all above which refunds at 20 percent or so of interest must be ordered to be paid by the carriers. This further illustrates my point that selection of a single-number rate of return is probably unwarranted given the imprecise state of the art of ratemaking. (See *TMT Corp.—Proposed General Increase in Rates*, cited above, 19 SRR 985 (F.M.C.; 19 SRR 645 (I.D.), where the Commission allowed TMT a rate of return of 16.15 percent although finding that the record showed a reasonable rate of return to be only 15.8 percent, i.e., .35 percent below what was actually allowed, considering the fact that some allowance has to be made for imprecise rate-of-return measurement techniques. See also *Matson Navigation Co.*, 20 F.M.C. 822, 826 n. 6 (1978), regarding a "zone of reasonableness" approach.)[19]

Considering what has happened to the cost of borrowing money in the past five or more years, Mr. Copan's

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[19] Furthermore, it seems rather drastic to fix on a single number such as 17 percent as the one and only maximum allowable rate of return so that if PRMSA were to exceed that figure by less than one percent (i.e., if PRMSA were to reach 17.44 percent as BIE believe could happen under BIE's unadjusted calculations (not allowing for delayed redelivery of the *PONCE*, etc.) PRMSA would be ordered to make refunds at something like 20 percent interest as required by P.L. 95-475. This would be quite a blow to a carrier which apparently has not made reasonable earnings in its history, has lost $1,800,000 in its most recent fiscal year ending June 29, 1980, and admittedly needs some rate increase even if only the 11.2 percent increase that GVI/PRMA advocate. We are not dealing here with carriers which have enjoyed fat profits and could absorb such a refund order out of such profits. Rather, as Dr. Nadel testified, the carriers' last G.O. 11 reports showed only an aggregate of 7.1 percent rate of return and historically these carriers have earned returns that were actually 6 percent below FMC-approved rates of return.

estimate of 7 percent for interest seems too low. Therefore, unless adequately explained, I would find that his 16 to 17 percent rate of return to be a minimum and allow some slight flexibility upward to account for his apparently low or imprecise estimate of interest. As I will discuss later in connection with Dr. Silberman, this range of 16 to 17 percent can perhaps be raised to 17 or 18 percent for PRMSA, after adjustments are made to Dr. Silberman's recommendations (19-20 percent) which reflect Mr. Copan's criticisms. I believe these adjustments will justify a range up to 17 or 18 percent for PRMSA and that no more reliable range can be determined on this record, even though the adjustment of Dr. Silberman's recommendations itself is not free of problems. However, before I get into the extremely complicated problems raised by Dr. Silberman, I will mention at this juncture that there is an alternative approach that indicates that a range of 16 to 18 percent or thereabouts might be reasonable, and that approach is given by Dr. Nadel, whose alternative methodology provides a yardstick of sorts to those expert witnesses who made adjustments for risk factors to their reference groups.

Dr. Nadel, like all the other experts, is not free of error. I have mentioned earlier his erroneous awards of premiums for bad business years and past shortfalls in revenues which would elevate his net rate-of-return of 18.5 percent to 23.5 percent. But if we put aside this five percent award and concentrate on Dr. Nadel's net recommendation of 18.5 percent, we can explore whether that is a reasonable yardstick. Of course, as BIE and GVI/PRMA have noted, Dr. Nadel focused one year, 1979, a high year compared to the previous years that he studied, and he also adjusted his median rate of return (13.93 percent) upward on the basis of his belief that a correlation existed between rates of return and increasing rates of interest or, more accurately, yields. (See Sea-Land's opening brief, pp. 4-23 for a good explanation.) He has been criticized for his adjustment and his time

period as well as his selection of 717 companies from 36 industry groups as a reference group drawn from Value Line, although one would think that a comparable group could be selected from such a large number. However, the important consideration is that unlike the other experts except for Mr. Brennan, Dr. Nadel made no adjustment for risks. He did this because he believed that he had selected a truly comparable group of companies based upon his several enumerated criteria. It is interesting that he is attacked for doing this when the classic comparable earnings test, as stated in the case, is supposed to rely upon a comparable group, i.e., companies having corresponding risks.[20] In any event, under his approach

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[20] Dr. Nadel's attempt to select truly comparable companies was opposed by BIE who believed that his group of 717 companies drawn from 36 industries was too narrow. This presents a curious situation. Theoretically, the classic comparable earnings test was supposed to select comparable companies with similar risk and the *Bluefield* and *Hope* decisions define the comparable group in those terms. If so, then Dr. Nadel was on the right track since he selected comparable companies under specifically enumerated criteria and then made no adjustment for risks. Almost all other expert witnesses, however, including Mr. Copan, selected companies for comparison but then added factors for peculiar risk affecting the four respondent carriers. BIE seems to be arguing that it is not possible or feasible to find a comparable group having similar risk and that one must always adjust for peculiar risk, although G.O. 11 does not expressly forbid selection of a truly comparable group of companies and does not state that an adjustment for risk is always required. One wonders why 717 companies represents too narrow a group for comparison, as BIE contends. Moreover, to illustrate further the lack of clarity in G.O. 11 concerning the proper reference group, BIE also contends that PRMSA's reference group, which includes mining and retailing companies as well as manufacturing companies, is too broad. BIE's exclusion of these companies is well argued. However, it is difficult and perhaps unfair to find against any particular party who has made a particular selection of companies for comparison for the reason that the party's reference group is not comparable or is too broad or too narrow when the Commission's own regulation is so unclear on this point as are previous Commission decisions. Cf. *Mediter-*

Dr. Nadel made no adjustments for risk and arrived at the figure of 18.5 percent. This figure, slightly above the range of 16 to 18 percent, might be somewhat high because it begins from a median of 13.93 percent for the year 1979, a high year, as I have noted although the median figure is lower than the weighted average—14.87, which he found for his reference group. Nevertheless it provides an interesting alternative, if one accepts Dr. Nadel's selection of truly comparable companies based on the several criteria which he enumerated. (See Sea-Land's opening brief, pp. 10-11, for a list of these criteria.)

An even more fascinating exercise which might illustrate that the range of 16 to 18 percent is roughly reasonable can be performed by adjusting Mr. Brennan's recommendation of 15 percent upward to account for the risk factors that he refused to recognize. Of course, as I have discussed, Mr. Brennan believes that his reference group drawn from Standard & Poor's 400 Industrials requires no upward adjustment for any risk since the marketplace has already determined what return was necessary and has awarded a factor to keep market value of assets above book value, etc. However, a preponderance of expert testimony shows that the respondent carriers suffer from higher than average risk and merit adjustments to benchmark rates of return drawn from reference groups. See the testimony of Dr. Silberman who utilized three different tests to show that PRMSA stood at the high level for business risk and of Mr. Copan who showed that the factors which Mr. Brennan cited to show low risk for PRMSA actually demonstrated the reverse for the four carriers. Dr. Germane also found high risk. (See PRMSA's reply brief, p. 25, citing Brennan's re-

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ranian Pools Investigation, 9 F.M.C. 264, 304 (1966). It would obviously be helpful if the Commission would clarify G.O. 11, and it would be my recommendation, based upon the factors explained by Mr. Copan, to select the manufacturing sector of U.S. industries, as did Mr. Copan, for use in the future.

buttal testimony, pp. 20-21, and Copan's surrebuttal testimony, pp. 22-25.) Thus, if one adds a minimal factor to Mr. Brennan's 15 percent, we would once again end up somewhere in the zone of reasonableness described. For example, if we add Dr. Silberman's factors for business risk only, as regards PRMSA, namely 2.32-3.32 points, this brings the 15 percent up to 17.32-18.32. Or, if we add Mr. Copan's 2.5 percent figure for business risk only for PRMSA, we would arrive at 17.5 percent. For Sea-Land and TMT, it would rise to 16.5% after adding Mr. Copan's 1.5% risk factor.

It becomes increasingly clear that a range of 16 or so to around 18 might be the most reasonable zone that can be determined on the present state of the record. This conclusion, however, must reckon with the work of Dr. Silberman and leads to the most complicated and brain-breaking controversy in the entire case. I would need much more time than I now have to unravel the complexities surrounding the work of Dr. Silberman, especially with regard to the effort to compensate for PRMSA's tax-exempt status. I can only deal with the matter briefly and conclude that Dr. Silberman's work, as highly skilled and impressive as it is, must be adjusted for the reasons put forth by BIE and GVI/PRMA because of its departure from the literal requirements of General Order 11 and because of the practical impossibility of resolving the matter of adjusting for PRMSA's tax-exempt status satisfactorily in this hasty, time-impelled proceeding. Furthermore, because of the practical difficulties of trying to perform a rate-of-return study for application to a unique, tax-exempt, totally debt capitalized carrier such as PRMSA, I agree with BIE that one should consider measuring PRMSA's needs by using the fixed charges coverage ratio, although I would consider it as a necessary check and not eliminate a rate of return study totally from consideration.

This brings me to what will have to be a brief discussion of the massive work performed by Dr. Silberman for

PRMSA and a brief description of the problems which I have found with it. As seen from the table above, Dr. Silberman recommended a range of rates of return for PRMSA of 19-20 percent. He also used FTC-QFR data but selected manufacturing, mining, and trading sectors, not merely manufacturing as had Mr. Copan (and Dr. Ileo). He used a narrower time period (1978-1980) than Mr. Copan's period of 1974-1979. He found a benchmark rate of return before taxes (because of PRMSA's tax-exempt status) for the reference group to be 16.68 percent and then added 2.32-3.32 percentage points for business risk factors, based upon three different statistical measures. (Dr. Silberman did not add on a factor for financial risk, nor did Mr. Copan who also awarded PRMSA a risk factor of 2.5%. However, GVI/PRMA attack PRMSA and Dr. Silberman because of PRMSA's lopsided financial structure, i.e., total debt capitalization, under a misapplication of the "prudent investment" theory, although neither PRMSA nor Dr. Silberman seek any factor for financial risk, which such a capitalization structure might otherwise warrant in theory.) A good general defense of Dr. Silberman's work is provided in PRMSA's reply brief, pp. 2-39, although I do not agree with all of it as will be seen.

There are two main problem areas that appear from Dr. Silberman's work, the first relatively easy to handle, the second, more complex. They both relate, however, to the fact that General Order 11 has established certain accounting procedures which do not always follow non-regulatory accounting practices, do not have a provision for tax-exempt companies with huge interest costs such as PRMSA, and make no provision for the fact that the reference group mixes all of its capital and assets without regard to operating or nonoperating functions.

Just as I had problems with Mr. Brennan who seemed unable to accept the Commission's comparable-earnings

test or, if he did, injected novel theories into it which General Order 11 never considered nor mentions, I have problems because Dr. Silberman chose not to employ the General Order 11 formula (net income plus interest divided by total capital) to the reference group. Instead, Dr. Silberman used a "surrogate" formula (operating income divided by net fixed assets plus working capital). Both Dr. Silberman and PRMSA on brief try to give reasons for this "surrogate" formula. (See PRMSA's opening brief, pp. 30-45.)[21] But as BIE and GVI/PRMA

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[21] PRMSA struggles mightily to persuade that the Commission intended to allow something like Dr. Silberman's "surrogate" rate base formula as applied to reference groups when it issued General Order 11. (PRMSA's opening brief, pp. 30-35.) The portion of its brief cited is not convincing, however. True, the Commission abandoned return-on-equity in favor of return-on-rate base, as the quoted portions of Docket No. 78-46, cited in PRMSA's brief, show. But I do not read the Commission's decision adopting the return-on-rate base method to authorize a formula for application to a reference group that is something other than total invested capital, or "total capital" as the regulation liberally reads. Furthermore, in the particular regulation in question (46 CFR 512.6(d)(2)(ii)), the Commission distinguishes between "return on rate base" (for the carrier) with "return on total capital" (for the reference group of "comparable U.S. corporations"). Mr. Copan and BIE have cited authorities including even Dr. Silberman who recognize that return on invested capital is a proper formula. Dr. Silberman's comments in Docket No. 78-46 do indeed seem to show that he was using total invested capital interchangeably with rate base but that does not mean that the Commission also did so. Furthermore, these comments did not call the Commission's attention to the distortion problems caused by use of total capital applied to the reference group, which PRMSA does in this proceeding. Therefore there was no reason for the Commission in Docket No. 78-46 to worry about application of a "total-capital" formula to reference groups. All that the Commission really did was abandon the return-on-equity formula which was complicated by debt/equity ratio problems. But the Commission did not say that the "total capital" formula as applied to the reference group of "comparable U.S. corporations" could be a "surrogate" collection of assets and working capital. If PRMSA wants to use Dr. Silberman's "surrogate" formula, it should petition the Commission to revise G.O. 11 in a separate rulemaking proceeding.

have correctly demonstrated, this formula simply does not follow the requirements of General Order 11. Rather than discuss the details of this departure from General Order 11 which would serve little purpose since I cannot alter General Order 11 in this proceeding, I will mention only that BIE's witness Copan has revised Dr. Silberman's table to accommodate it to General Order 11 and to Mr. Copan's views as to a more appropriate reference group (limited to manufacturing companies) and time period (fiscal years 1975-1980 rather than 1978-1980). The results are shown in Mr. Copan's Schedule 6, attached to his rebuttal testimony, as discussed in that testimony on pp. 13-14. They show that with the adjustments, the benchmark before interest before tax figure, which Dr. Silberman calculated as 16.68 percent for the reference group, is reduced to 14.70 percent. Thus, if the business risk factor is added to this figure, we arrive at an adjusted rate of return recommendation of 17.02 to 18.02 percent if Dr. Silberman's range of business risk factors are added on and to 17.20 percent if Mr. Copan's business risk factor (2.5 percent) is added on. This exercise would tend to confirm that a reasonable rate of return for PRMSA is in the 17 to 18 percent range. However, life is not so simple as this case illustrates for a number of reasons. First, as PRMSA has shown, the use of General Order 11 without regard to separation of operating and nonoperating assets and income when deriving a benchmark rate of return from the FTC-QFR reference group can lead to overstating or understating depending on the mix of assets and the returns of each income produced by each. PRMSA explains the distortions well in its opening brief, pp. 39-47. In some instances the General Order 11 formula applied without such separation could lead to a recommendation for a higher return for a carrier than would be justified when nonoperating assets of both carrier and reference group were producing higher rates than the operating assets. At other times the recommended rate of return would be lower for

the carrier than that earned by the reference group. (See PRMSA's opening brief, pp. 41-43, and hearing exhibit 7.) PRMSA argues that because of this failure of General Order 11, "there can be no true comparability between a carrier and the reference group in a comparable earnings study unless the reference group's data is [sic] adjusted to reflect a return comparable to the return on rate base. If it is not, either the carrier or the public is penalized by the exclusion from G.O. 11, of nonoperating assets and nonoperating income." PRMSA's opening brief, p. 46, Mr. Copan and BIE have answered this criticism of General Order 11 on the grounds that companies are competing for capital on a total capital basis and that investors are not seeking to separate one type of asset or income from another. (See BIE's opening brief, pp. 34-35.) Whatever the merits of PRMSA's argument, however, the fact remains that this is not the proceeding to amend General Order 11. Moreover, as far as I can determine, the record does not show what kind of distortion was produced by application of the General Order 11 formula to the reference group. Therefore, I must find that General Order 11 simply does not authorize a formula for application to a reference group in which the denominator consists not of total capital but of "net fixed assets and working capital."[22] Both BIE and GVI/

[22] I have only a brief moment to comment further on this dispute between BIE and PRMSA as to the meaning of "total capital." BIE argues (reply brief, pp. 21-23) that "total capital" is a very simple term and simply means "total." Therefore, Dr. Silberman's formula is incorrect. Although I agree with BIE that Dr. Silberman's formula does not comply with G.O. 11, BIE's argument in this particular regard is too quick. The G.O. 11 formula uses "total capital" as the denominator without further definition but, as Mr. Copan's testimony and BIE elsewhere demonstrates, this really means "total invested capital," or long-term liabilities plus equity. But such a definition omits current liabilities from the balance sheet. So "total" is not really "total." See an explanation in Anthony and Reece, *Management Accounting Principles* (Richard D. Irwin, Inc., 3d ed. 1975), pp. 239-241. See also at least five different types of "total capital" reported by Value Line, as shown in Sea-Land's reply brief, Attachment A, p. 2.

PRMA have convincingly demonstrated this and have also shown how Dr. Silberman's own selection of assets and working capital are not reliable (e.g., his definition of working capital is not that of General Order 11 and Dr. Silberman's selection of assets is somewhat unclear). (See GVI/PRMA's reply brief, pp. 9-15, and BIE's reply brief, pp. 20-24.)

The Tax-Exemption Issue

The final, brainbreaking problem, which also stems from General Order 11 rate-of-return methodology as applied to reference groups, concerns the problem of PRMSA's tax-exempt status and its huge interest costs. This is a problem which offers no easy solution if rate of return is used as the sole test and because it offers no easy answer under that test, suggests strongly that BIE is correct in recommending that consideration be given to measuring PRMSA's rate increases by the fixed charges coverage ratio. This topic which deserves a treatise by itself and a separate rulemaking proceeding for full contemplation does not lend itself to a solution in this hectic, time-constricted, multi-issue proceeding. The battle here is waged primarily between GVI/PRMA and PRMSA with BIE, although apparently agreeing somewhat with GVI/PRMA, suggesting a solution, namely, to junk the rate-of-return approach as far as PRMSA is concerned and turn to the fixed charges coverage ratio. For a discussion of the battle by the parties, see GVI/PRMA's reply brief, pp. 25-30; GVI/PRMA's opening brief, pp. 249-252; PRMSA's reply brief, pp. 31-38; PRMSA's opening brief, pp. 19-20; BIE's reply brief, pp. 26-27.

The battle stems from Dr. Silberman's attempts to adjust the General Order 11 methodology (as he viewed it using his "surrogate" rate-base formula) for the fact that PRMSA is a tax-exempt company with a huge interest expense, i.e., unlike any company in the FTC-QFR reference group. Dr. Silberman made such an adjustment,

arriving at a benchmark figure of 16.68 percent as an equivalent rate of return for a reference group company before interest and, of course, before taxes. All other witnesses using the comparable-earnings method, however, made no such adjustment, instead deriving after-tax benchmark figures. Thus, at the outset, Dr. Silberman's benchmark rate of return is higher, as GVI/PRMA note. (As I discussed above, Mr. Copan reworked Dr. Silberman's table to conform it to the General Order 11 formula and made other corrections, reducing the before-tax benchmark from 16.68 percent to 14.70 percent. This exercise did not eliminate the tax-exemption and high interest problems affecting PRMSA, however.)

PRMSA and Dr. Silberman believe that the before-tax, before-interest benchmark of 16.68 percent is proper and shows what a tax-exempt company like PRMSA would have to earn on its rate base to earn the same amount that would be earned by a taxable company achieving a before-tax return of 20.67 percent, which is the weighted average return which Dr. Silberman found to have been experienced by his reference group (under his methodology) (PRMSA's opening brief, p. 19). PRMSA furthermore believes that by allowing PRMSA a benchmark (i.e. before markups for risk factors) return of 16.68 percent, before interest, before taxes, PRMSA passes on to the public the entire tax savings generated by its tax-exempt status. Both BIE's witness Copan and GVI/PRMA see another side to this claim, however, because they see a distortion produced by PRMSA's huge interest costs (projected as $24 million in the pro forma year, or approximately 12 percent of PRMSA's total capitalization). Mr. Copan explains that this huge interest expense borne by PRMSA makes Dr. Silberman's adjustments for tax-exemptions "hazardous." (Copan-rebuttal testimony, pp. 6-7.) As Mr. Copan explains, Dr. Silberman's adjustments are subject to overstatement of the rate of return and are heavily dependent on the amount of interest. For

example, reducing PRMSA's interest expense from $24 million to $20 million would reduce PRMSA's benchmark rate of return, derived from the reference group, from 16.68 percent to 15.77 percent. Mr. Copan states that "through usage of a $24 million interest expense figure for a hypothetical tax paying firm, one is basically understating taxable income for the tax paying entity, which translates into a lower amount of taxes that need not be paid by PRMSA, and thus a higher equivalent rate of return for PRMSA." (Copan-rebuttal testimony, p. 7.) Mr. Copan states the dilemma that if one calculates a comparable before-tax rate of return for PRMSA, this would entail allowance of a greater than necessary rate of return but if reliance is placed on a comparable after-tax rate of return, one must compare PRMSA with firms that, unlike PRMSA, do incur a tax liability. (Copan-surrebuttal testimony, p. 6.) Mr. Copan suggests a refinement of Dr. Silberman's calculations adjusted to consider PRMSA's capital structure as well as its massive interest payments. (*Id.*) PRMSA, however, disagrees with Mr. Copan because by adjusting PRMSA's rate of return by reducing its interest obligations, PRMSA would be forced to pass along to rate payers more in tax savings than PRMSA actually experienced. (PRMSA's opening brief, p. 47 n. 22.) Mr. Copan recommends that we escape this tax dilemma by considering the fixed charges coverage ratio.

This, unfortunately for the reader, is only the beginning of the controversy. GVI/PRMA are much more vehement in their opposition to Dr. Silberman's claim that he has passed on to the consumer the entire tax savings generated by PRMSA's tax-exempt status. GVI/PRMA see this calculation of Dr. Silberman to be an illusion. According to them, Dr. Silberman is imputing to the reference group PRMSA's massive interest costs, thereby overstating the rate of return, and Dr. Silberman is not deriving an actual rate of return from the reference group of companies but rather hypothetical returns

based on the assumption that the reference group had the same massive interest costs as PRMSA. (GVI/PRMA's reply brief, p. 26.) GVI/PRMA show in a table (reply brief, p. 27) that if one compares PRMSA to a true reference group company, i.e., one with a much lower interest (estimated through Mr. Copan's work to be about 2 percent of the reference group companies' total capital as opposed to PRMSA's nearly 12 percent), the before-interest, before-tax benchmark rate of return derived from the reference group would drop to 12.16 percent from Dr. Silberman's 16.68 percent. But once again, as they did to Mr. Copan, PRMSA argues that one cannot simply "wish away" PRMSA's high interest costs. GVI/PRMA reply to that argument by stating that General Order 11 methodology simply mandates that the reference group be a true reference group, not one to which is imputed PRMSA's peculiar high interest costs. As GVI/PRMA state: "This, however, is not the 'wish' of GVI/PRMA but the *mandate* of G.O. 11 in recognition of the proper regulatory treament of interest expense." (GVI/PRMA reply brief, p. 28.)

In its reply brief, PRMSA does a fantastic job of trying to justify acceptance of what it calls "a package deal," i.e., that PRMSA's highly leveraged (total debt capitalization) structure "has certain consequences to the ratepayers and its tax exempt status has other consequences to the ratepayers." (PRMSA's reply brief, p. 34.) PRMSA produces a set of hypothetical tables with various companies having certain debt/equity structures compared to a non-taxable company with a 100-percent debt structure like PRMSA. These tables do show that PRMSA wants me to conclude, namely, that the GVI/PRMA and Brennan approach require PRMSA to pass on to the ratepayers tax savings never experienced by the non-taxable company, in effect "penalizing" PRMSA for its tax-exempt status. (Furthermore, using the tables and another adjustment, PRMSA shows that a non-taxable company like PRMSA needs to earn a return of 18.08 per-

cent to be equivalent to a 22.8 percent before-tax return of the reference group, derived from PRMSA's hypothetical tables. (PRMSA's reply brief, p. 37.)

All of this justification is fascinating and I commend it to lovers of dilemmas. It does show what PRMSA argues. However, as GVI/PRMA have pointed out by way of a warning in their reply brief, no matter how many tables PRMSA may present in its final brief, PRMSA cannot escape certain facts. First, PRMSA is obviously struggling because of the General Order 11 dilemma which does not account for totally debt-financed, tax-exempt companies like PRMSA and does not expressly allow such a company to adjust actual reference companies' data to attribute to those companies PRMSA's peculiar financial structure. This means, as PRMSA has shown, that PRMSA will have to pass along tax savings which it does not realize if PRMSA is forced to start from a benchmark rate of return figure drawn from the reference group which is after interest, after taxes. The alternative, as Mr. Copan pointed out, however, is to allow PRMSA a higher rate of return than is necessary based upon a benchmark figure that is before taxes, before interest only because of PRMSA's peculiarly high interest costs. Second, the tables do prove what PRMSA wishes me to conclude about the apparent inadequacies of General Order 11 to deal with its peculiar problems even though the tables themselves are hypotheticals, i.e., they assume several sets of facts, for example, a taxable company with a 30-60 percent debt-equity ratio and another taxable company with 60-40 percent debt-equity ratio. Furthermore, the interest for these hypothetical companies nowhere approaches the proportion of interest to operating income of PRMSA (PRMSA's interest at $24 million being more than three times its projected income).

PRMSA's exercises are ingenious and appear to justify its adjustments to the application of General Order 11 to

the reference group. Nevertheless the price for this adjustment is not only to start from a higher rate-of-return benchmark but to make an adjustment to the normal after-tax benchmark figure drawn from the reference group because PRMSA is a tax-exempt, high-interest company which is not comparable to the companies in the reference group. Furthermore, even if PRMSA were held to the benchmark rate of return drawn from the reference group *after* taxes, as Mr. Copan, Mr. Brennan, and others did (before making upward adjustments) and even if this means that PRMSA is passing on more tax savings than it experiences, the result, according to Mr. Copan, Dr. Nadel, and Mr. Brennan, as adjusted by adding risk factors, is to allow PRMSA a rate of return of 17 to 18 percent, above PRMSA's pro forma projections of expected returns. Moreover, PRMSA is given a rate of return that, as GVI/PRMA's table shows, is far above a benchmark return (12.16 percent) that would be derived if the tables were turned and the reference group's actual low interest expenses were attributed to PRMSA. Therefore, the rate payers are arguably picking up some of the costs of the tax savings which PRMSA never experienced.[23]

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[23] While one can understand PRMSA's reluctance to pass on to consumers tax savings it never experienced, merely because of its high interest and total debt financial structure, this financial structure is PRMSA's own making. PRMSA has made much of the fact that it is seeking no factor for financial risk (as opposed to business risk) otherwise due to it because of its total debt structure. True enough. But if PRMSA is allowed to start from a before-tax, before-interest benchmark of 16.68 percent drawn from a noncomparable reference group rather than 12 or so percent which Mr. Copan derives after taxes, it more than makes up its willingness to forego points for financial risk. Finally, PRMSA is government-owned. One may wonder what is so terrible if a government-owned carrier passes on to its citizens more tax savings than the carrier experiences and why its citizens should pay a higher rate of return to a publically-owned carrier so that the carrier can show that it is not being "penalized" for its tax-exempt status, although admittedly this would undermine the purposes of conferring tax exemption on PRMSA to some extent.

I conclude that PRMSA has pointed out a serious inadequacy in General Order 11 and one caused possibly by the fact that this problem in its full ramifications was not brought to the Commission's attention in Docket No. 78-46. Or perhaps the problem was realized and that is why that regulation permits usage of the fixed charges coverage ratio when the rate-of-return approach would produce "unreasonable results." (Docket No. 78-46, slip opinion, p. 68.) Much as I appreciate PRMSA's dilemma, the allowable rate of return that I find most reasonable as calculated by Mr. Copan and by Dr. Silberman after adjustments, and as compared to Dr. Nadel's 18.5 percent recommendation, are sufficiently high to permit PRMSA to maintain its 16 to 18 percent general rate increase. Mr. Copan's recommendation, it will be remembered, was for 17 percent, and is probably on the low side due to his estimate of interest at only 7 percent. It was not affected by the above tax problems since he derived a benchmark return from the reference group which was after taxes, not before. Moreover, the fixed charges coverage ratio, which Mr. Copan recommends as the primary test because of such problems as discussed immediately above, confirms the reasonableness of PRMSA's rate increases. Therefore, in the last analysis, resolution of this tax problem is not necessary in this case. However, it should be resolved in a rulemaking proceeding amending General Order 11 instead of being buried in the midst of so many other issues so that sufficient time can be devoted to it.

Use of the Fixed Charge Coverage Ratio

In its Order of February 27, 1981, the Commission stated that "because of the peculiar capital structure of PRMSA, the fixed charge coverage ratio standard of reasonableness stated in 46 C.F.R. 512.6(d)(3) will also be considered in determining the reasonableness of PRMSA's proposed rate increases." Order, pp. 2, 3. In the ordering paragraph, the Commission stated that "in addition con-

sideration be given to the fixed charge coverage ratio standard of reasonableness . . . in making such determination." Order, p. 3.

Various parties' experts have estimated reasonable ratios under this standard (1.2 by GVI/PRMA; 1.6 by DTPTC; 1.8-2.0 by BIE; and 2.02-2.08, at least, by PRMSA). Only BIE urges that this ratio be used as the primary standard instead of rate of return on rate base.

I have no time to discuss this issue at any length. Under any reasonable projection PRMSA will not exceed BIE's estimate of 1.8-2.0, which appears to be too low anyway. I do not find, however, that this ratio should be the primary standard. The Commission's Order merely states that "consideration" should be given to it and G.O. 11 establishes that the ratio is a "legitimate secondary evaluation . . . which may be employed when rate of return on rate base produces unreasonable results." Docket No. 78-46, slip opinion, p. 68. Again the Commission stated that "[t]his methodology, it must be remembered, is to be employed only as a secondary tool and any comparison evaluation made on the basis of that ratio will include a variety of entities, not solely public utilities." Docket No. 78-46, slip opinion, p. 69. The ratio has deficiencies, one of them being that it is a bare minimum, not measuring risk, another that it is totally dependent upon the relationship of a debt payment schedule to the useful life of an asset, becoming highly distorted when that schedule is not matched to useful life of the asset. Moreover, use of the TIER ratio, a reduced derivative of the fixed charge coverage ratio may not be fully reliable without a study of comparable TIER ratios. The I.C.C. has specifically rejected the ratio for determining reasonable revenues for railroads. In Ex Parte No. 393, *Standards for Railroad Revenue Adequacy*, March 30, 1981, the I.C.C. had considered establishing a ratio as high as 3.5 but, in rejecting the use of the ratio, stated:

> After considering these comments we now believe that using these financial ratios as conditions to a finding of revenue adequacy would be misleading. Financial ratios are intended to provide summary information that, if not interpreted within the proper context, could suggest incorrect conclusions. For example, a firm's fixed charge ratio might be low because of its ability to raise long term debt. That ability could, in turn, be a reflection of its strong financial outlook. Yet the low fixed charge ratio would lead us to conclude the carrier was revenue inadequate. Because of the possible ambiguity, we have decided that these financial ratios should not be used in revenue adequacy determinations. We believe firmly that the rate of return standard is correct, and will base our determinations on it. Ex Parte No. 393, slip opinion, pp. 22-23.

Although I do not find that the fixed charges coverage ratio should be considered to be the primary test, as I have found above, as can be seen from my previous discussion concerning PRMSA's tax exempt status and the practical difficulties of applying the traditional General Order 11 comparable-earnings formula test in PRMSA's case, BIE's witness Copan recommends consideration of the ratio for good reason. I agree and believe that it serves as a useful check. As General Order 11 states in the portion cited above, the ratio may be employed when "rate of return on rate base produces unreasonable results." One may wonder how one is to determine that the results are unreasonable unless there is some independent yardstick. For instance in this case Mr. Copan's rate of return "results" are 17 percent. That result does not appear to be unreasonable. To avoid the circular reasoning here, a reasonable interpretation is that, as Mr. Copan testified, the ratio should be considered because of the practical difficulties of applying the rate of return method to PRMSA which I so painfully described in the preceding section.

This difficulty should be enough to trigger consideration of the ratio and, indeed, the Commission's Order specifically invokes such consideration. It is reasonable to presume that both the regulation and the Commission's Order wanted the ratio used as a check specifically because the Commission recognized the problems associated with PRMSA's peculiar capital structure, as stated in the Commission's Order cited above.

Although there are deficiencies in the ratio in theory and in Mr. Copan's particular testimony, as PRMSA has pointed out (PRMSA's reply brief, pp. 106-110), the deficiencies, if anything, may tend to show that his recommendations (1.8-2.0) might be too low. BIE describes why the ratio, even with its admitted weaknesses, is useful in this proceeding for application to PRMSA. (BIE's reply brief, pp. 41-50.) I agree but, as indicated, would apply the ratio as a check on the rate-of-return method. As BIE states, the usage of the ratio helps alleviate a problem that has been continually dogging the Commission, namely, how to apply rate-of-return methodology to a unique carrier like PRMSA, tax-exempt, debt-financed, government-owned. Even an expert witness previously appearing for PRMSA in at least one previous rate case (Docket No. 75-38) has recognized that the rate-of-return method has definite limitations when applied to a carrier like PRMSA. (BIE's reply brief, p. 42.)

As noted, the ratio has recognized deficiencies. However, Mr. Copan's work, in my opinion, is sufficient to act as a check on the rate-of-return methodology and, as such, it survives the various attacks made on it by PRMSA, GVI/PRMA, and DTPTC, none of whom conducted a study of their own. Mr. Copan did his study, as noted, because of the tremendous problems one has in applying the rate of return method to PRMSA. He selected municipally-owned utilities because they are comparable to PRMSA for purposes of this test and made adjustments upward above the minimum levels derived from rate cove-

nants in bond offerings to allow for risk and provide PRMSA with a cushion. (See BIE's opening brief, pp. 24-27.) General Order 11 specifically authorizes use of comparable public utilities such as those selected by Mr. Copan. (See Docket No. 78-46, slip opinion, p. 27, rules section, 46 CFR 512.6(d)(3)(ii).) The attacks made on the ratio, while possessing some merit, have been satisfactorily answered by BIE and, in any event, seem to me to be efforts to discredit the alternative method because of PRMSA's and GVI/PRMA's belief that their rate-of-return calculations justify their respective positions. I agree, however, with PRMSA that PRMSA would not exceed any reasonable estimate of the ratio under any projection that I have seen and that Mr. Copan's estimate of 1.98-2.00 might be too low, if anything.

Issues (2) and (3): Carriers' Revenue and Cargo Volume Projections

The Commission's Order frames two issues concerning respondents' revenue and cargo volume projections. These are, as noted earlier:

(2) Is the methodology used by Respondents in making revenue and cargo volume projections appropriate?

(3) Are Respondents' revenue and cargo volume projections sufficiently accurate, and, if not, what are the appropriate projections?

Although the first of the above two issues questions whether the "methodology" employed by the carriers in forecasting was appropriate, the main contentions of protestants concern not the fact that the carriers used various forecasting techniques such as market surveys, contacts with shippers, projections of categories of traffic, etc., but rather specific errors which protestants claim have rendered the projections unreliable.

It is generally recognized that in the field of forecasting there is no way to make a precise prediction. As protestant DTPTC recognized in its opening brief:

> First, it is clearly impossible for any carrier regulated by the Commission, or any other business for that matter, to predict its future revenues and volumes precisely. There are simply too many unknowns and none of us has a crystal ball. DTPTC opening brief, p. 2.

I believe this statement is a truism in the business world so that a variety of different forecasting techniques may be employed. As one book states in regard to financial projections by businesses:

> This means that there will be a great deal of difference in the approaches taken by various companies, even within the same industry, and differences will have to be recognized even within the same industry, also within a given company. A growing body of literature on the concept of responsibility accounting has recognized these aspects. Helfert, Erich A., *Techniques of Financial Analysis* (Richard D. Irwin, Inc. fourth ed. 1977) p. 91.

DTPTC suggests that the Commission abandon the system of relying upon "*ad hoc* guestimates" which lead to continual "wrangling" and do not lead to accuracy. (DTPTC opening brief, p. 2.) Instead DTPTC would have the carriers simply assume that their traffic volume would remain constant in the forecasted year so that revenue would change merely because of the rate increases. DTPTC also suggests an easier approach for determination of various expenses other than labor costs (which are easily determined from the labor contracts), namely, by adopting a formula upon which everyone can agree, as has the I.C.C. which utilizes a formula for non-labor expenses for motor carriers.

These suggestions would certainly simplify Commission rate cases. However, until and unless they are considered and adopted by the Commission, we must continue to abide by the current system, however clumsy and difficult it may be. Because we must abide by the present system, furthermore, it is necessary to recognize the basic principle of the system, which is that it is based upon forecasting and upon the principle that a carrier is expected to use reasonable, responsible techniques at the time it makes its projections. If so, to penalize the carrier by ordering refunds at 20 percent interest because of later events which the carrier could not have reasonably anticipated smacks of an *ex post facto* type decisionmaking. On the other hand, to permit carriers to take advantage of later events to justify their earlier predictions sounds like *post hoc* rationalization. In other words, current Commission rate cases impose a responsibility on carriers to make reasonable projections and try to avoid either *ex post facto* decisionmaking or *post hoc* excuses by the carrier. Furthermore, under this principle of responsible forecasting compounded with the need for expedition, it is not appropriate to introduce later actual data unless there are extraordinary reasons, for example, when something has happened to make the carrier's projections not reasonably possible even as an approximation. The point is to encourage responsible forecast accounting and not to penalize carriers who have employed the best and most reasonable techniques available unless an event occurs which obviously makes the forecast a pretense. I have no time to develop this discussion further and will return to it briefly later in connection with the issue over fuel projections. Suffice it to say that Commission rate cases are based upon forecasting, not after-the-fact accounting.

Having said that, I must briefly discuss the various attacks which protestants have made upon the four carriers' forecasts. PRMSA, as the leading carrier by far, undergoes the most intensive attacks. PRMSA explained its methodology in some detail in its opening brief (pp. 65-

72). PRMSA explains that the "basic methodology that PRMSA has utilized here, that is, the marketing survey and the adjustment for plant closings and openings, has been utilized by PRMSA in the past three general rate increases filed with this Commission." PRMSA opening brief, p. 72. PRMSA also states that its predictions have been shown to have been extremely accurate when comparing the forecast with actual history. In two of the last rate cases PRMSA actually carried 99 percent and 98.5 percent of what it had forecast. *Id.* Although, as I have said, the basic principle in Commission rate cases is not after-the-fact use of actual data, history bears out that PRMSA's forecasting has been very good and has not been pessimistic. BIE acknowledges this fact.

The argument on PRMSA's projections centers on which figure to use. PRMSA's projection, submitted on March 10, 1981, was for 166,763 trailer-loads (Transclass case) [24] as adjusted to account for purported effects of President Reagan's budget cuts and late redelivery of the laid-up ship *PONCE*. BIE would hold PRMSA to PRMSA's original forecast submitted to the Commission before the case was docketed in response to the Commission's insistence on a Transclass case projections. If so held, the figure is 171,441 units. Protestants GVI/PRMA insist that these figures are too pessimistic and are unreliable and project their own figure of 174,401 units.

The questions are whether to accept PRMSA's guesses as to the effects of the Reagan budget cuts and calculations as to the increased costs due to late redelivery of the *PONCE* and whether to adopt protestants GVI/PRMA's alternate projection instead of PRMSA's, BIE's, or any derivative of those two. As to the first question, I must quickly decide, having no time to explain further,

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[24] PRMSA has abandoned its *ATLANTIC BEAR* case since it appears that PRMSA will not acquire that ship, having failed to lure the *BEAR* out of its cave.

that protestants' and BIE's arguments on brief are convincing that the effects of President Reagan's budget cuts on decreases in the Puerto Rican trade are extremely speculative and that PRMSA's witness Lopez-Mangual, in effect, realized this when he tried to estimate how many units would be lost (265,000 tons he estimated) as a result of budget cuts. I refer the reader to the very effective arguments in BIE's and GVI/PRMA's briefs. As to the effects of late redelivery of the *PONCE*, I find that they can be considered in adjusting PRMSA's forecasts downward. Unlike the amorphous, preliminary estimates of effects of budget cuts, the late redelivery of the *PONCE* is a verifiable and quantifiable fact. Furthermore, protestants GVI/PRMA themselves specifically asked PRMSA to determine the effects of late redelivery of the *PONCE* although, being a less costly ship to operate than the *BAYAMON* which had operated in its place and for other reasons, adjusting for late redelivery of the *PONCE* would lead to a gloomier forecasted year. Moreover, PRMSA submitted its adjustments for the *PONCE* in time for other parties to challenge them before the record closed. This was not done. BIE objected merely on legal grounds, contending that PRMSA should be frozen to its original case submitted before this investigation was docketed. Protestants GVI/PRMA, after having asked for the evidence, object to it on various grounds on brief apparently because of inability to verify the accuracy. PRMSA, however, has explained and answered protestants in detail. See PRMSA reply brief, pp. 56-57.

The really significant attack on PRMSA's projections, aside from BIE's contentions that almost no revisions should be allowed once the case is docketed, is based upon GVI/PRMA's alternative projection based upon their witness, Dr. Suphan Andic, a qualified economist, who performed her own projection based upon a historic year ending on February 28, 1981, with certain adjustments.

I regret that I have no time to discuss her projection in any detail and that, because of the inexorable pressure of time and the number of other issues remaining, I can only announce that I find Dr. Andic's alternative projections to be belated creations done in the midst of litigation which show no greater reliability than PRMSA's and indeed even less, especially in view of her changes from previous positions, misunderstandings, or other errors.

GVI/PRMA's explanations for its alternative projections and reasons for their rejection of PRMSA's forecast are beautifully explained in their opening brief, pp. 71-99. As well crafted as the brief is, however, I find that I cannot agree that GVI/PRMA's Dr. Andic has come up with a more reliable projection than PRMSA. Although very impressive at first reading, when one rereads it and considers PRMSA's cogent replies, one sees less and less substance to the contentions. I regret that this discussion must be so brief in such an important area but I have no choice in view of the time pressures imposed upon me.

PRMSA's analysis of Dr. Andic and GVI/PRMA's attacks on its forecasts and of the substitution of a new methodology on surrebuttal by Dr. Andic is set forth very tellingly on pp. 62-70 of PRMSA's reply brief. Very briefly Dr. Andic abandoned her first methodolgy which had projected 174,401 units based upon PRMSA's historic year (July 1, 1979-June 28, 1980). On surrebuttal Dr. Andic projects the same figure, this time by taking the most recent actual year ending on February 28, 1981, and making an upward adjustment, again arriving at the same figure, 174,401 units. (As PRMSA points out, moreover, even her counsel on brief abandons her claim that she had earlier made adjustments to PRMSA's market survey rather than to PRMSA's historic year.) In any event, on surrebuttal, Dr. Andic changed her methodology but still arrived at the same number.

Certain key points should be kept in mind in evaluating Dr. Andic's later methodology. As PRMSA shows, she worked from a particular year rather than from PRMSA's market survey. Thus, if PRMSA's forecast is to be rejected in favor of Dr. Andic's, it would be rejected not because PRMSA's market-survey technique is necessarily wrong but because we should take more recent actual results and use them as the basis for projection. But, as I have noted, the basic principle of Commission rate cases is to require reliable forecasting techniques and not to employ after-the-fact actual data. If the latter principle were to prevail, then any carrier could constantly file new rate increases if later data showed that the carrier's actual earnings were much worse than had been predicted, on the grounds that such actual data forecasted terrible pro forma years.

In any event, Dr. Andic in her last projection, took 171,075 actual units carried in the year ending on February 28, 1981, and adjusted this figure upward to the same 174,101 units that she derived from her earlier methodology, now abandoned. The upward adjustment is derived by Dr. Andic's estimate of some economic growth and use of a 1.8 percent factor which she derived from her evaluation of such growth. However, as PRMSA notes, not only does Dr. Andic's new methodology result in the exact same number as the old but Dr. Andic now makes an upward adjustment whereas in the old methodology she made a downward adjustment from the base year then used. (PRMSA reply brief, pp. 69-70.) Moreover, in so doing, she somehow disregarded her earlier acknowledgement that adjustments for plant closings should be made downward because the effects would fall into the pro forma year[25] and that PRMSA would suffer some ill effects from continued use of the old Transclass ships.

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[25] I regret that I have so little time to discuss many other contentions by GVI/PRMA, for example, that PRMSA is guilty of double counting the effects of plant closings. First GVI/PRMA contended that PRMSA double counted the effects of plant closings,

I must leave the fascinating discussion of the Andic predictions with the acknowledgement that under different circumstances I would have provided a more detailed explanation of her work and why I find it to be less reliable than PRMSA's, although both have defects. I do note, however, that because of her changes in methodology, the incredible coincidence that both her old and new methodologies end up with exactly the same figure, 174,-101 units, the manner in which she decided to make changes, and the generally unsupportable claims made by GVI/PRMA and Dr. Andic regarding supposed concessions by PRMSA which never departed from its view that

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first by considering the general effects and then by specific accounting plant by plant. PRMSA's witness Huresky rebutted that contention. (See rebuttal testimony of Huresky, p. 9, quoted by GVI/PRMA in their opening brief, p. 87.) After this explanation, GVI/PRMA then contended that most of the plant closings had taken place prior to the start of PRMSA's pro forma year (March 1, 1981-February 28, 1982). (GVI/PRMA opening brief, pp. 88-89). I suppose this argument means that PRMSA should have made no allowance for the effects of plant closings on the pro forma year. But even Dr. Andic in her original methodology had recognized that the effects of closings would, to some extent, be felt during the pro forma year. Moreover, under a market survey technique rather than merely comparing historic years with pro forma years I would think that PRMSA would have to account for specific effects of plant closings even if they had mainly occurred before the start of the pro forma year, as indeed PRMSA did so account. In the last analysis, GVI/PRMA attempt to substitute a second forecast made by Dr. Andic based upon the most recent actual carryings of PRMSA in lieu of PRMSA's market survey techniques and criticize PRMSA's forecast by later events or estimates as to the future of the economy in an effort to discredit the PRMSA forecast. Of course, if enough time elapses, anyone's early forecast can be shown not to be exactly right. But as seen, PRMSA's market surveys have been shown to have a good track record. Even if not, GVI/PRMA's massive attempts to substitute Dr. Andic's work for PRMSA's does not ultimately persuade, notwithstanding amazing efforts by counsel on brief. I also find BIE's arguments on brief, supporting PRMSA's forecast in most regards, because it accords with trends showing past declines and otherwise appears reliable, to be persuasive. BIE opening brief, pp. 57-59.

its market survey technique is basically correct, I cannot find that Dr. Andic is more reliable than PRMSA in determining a fair and reasonable forecast.[26] Finally, I see that under a variety of projections ranging from PRMSA's original projection to projections accounting for Reagan budget cuts and delay of the *PONCE's* return (but not for GVI/PRMA's alternative method), the highest return to PRMSA would be 17.41 percent. This latter figure results if BIE's position of freezing PRMSA to its original pre-docketed unrevised figures is adopted.

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[26] I regret that it is impossible for me to discuss other contentions, especially some made by protestant DTPTC, which argues that PRMSA's projections are much too low and are unduly pessimistic. Even if DTPTC's specific points are valid regarding the fact that shippers contacted disagreed with PRMSA's forecast as to them and to Sea-Land's belief that PRMSA would benefit from I.C.C. deregulation of rail/water traffic, however, DTPTC adopts Dr. Andic's first study based on her earlier methodology. In other words, even if DTPTC is correct in certain specifics, I am asked to junk the entire market survey forecast of PRMSA in favor of Dr. Andic who herself dropped the methodology which DTPTC is willing to adopt. However, as to the merits of DTPTC's specific comments, I believe PRMSA has provided satisfactory answers. Specifically, I.C.C. rail/water deregulation will not necessarily benefit PRMSA which has very little intermodal traffic and does not plan to increase intermodal business since it calls at so many ports directly. Second, while it is true that the different views of two shippers out of three contacted throws some doubt on the accuracy of PRMSA's market survey, PRMA, with many members, did not challenge the survey by contacting its own shipper members. Also, an adjustment for the two contacted would lead to a minuscule upward revision of only 89 units out of 3,582. (See PRMSA's reply brief, pp. 67-68.) It would be interesting to contact all shippers whom PRMSA contacted to know whether they all were more optimistic than PRMSA or whether some were more pessimistic. In any event, I cannot reject an entire market survey because two shippers disagree. I can only wonder what would happen had a more complete double-check survey of shippers been performed. This would have been a good area for the Commission's staff investigators to check if the Commission had the available personnel.

(See PRMSA's reply brief, table in Appendix A.) As I have noted above, I would accept adjustments for late redelivery of the *PONCE* but not for the speculative effects of the Reagan budget cuts. According to the table, such an adjustment (for the *PONCE*) would result in a return to PRMSA of 16.95 percent. Either result is under what I have earlier found to be a reasonable rate of return for PRMSA (17-18 percent). BIE's figure was 17 percent, but, as noted, it is probably too low and needs further explanation.

Sea-Land's Revenue and Cargo Projections

Very briefly, Sea-Land has projected for the pro forma year a decline from 20,374 containers carried in the historical year to 19,252, a decline of 5 and one-half percent. Both GVI/PRMA and BIE contend that this projection is erroneous and is too pessimistic. GVI/PRMA, however, briefly attack Sea-Land's methodology of forecasting as being "unilluminating" since it is based on Sea-Land's "unspecified goals." (In addition GVI/PRMA attack one of Sea-Land's expense items, "freight brokerage" expense, as being unlawful since no provision for "freight brokerage" appears in Sea-Land's tariff. This issue was not specified in the Commission's Order and I could probably ignore it. However, I believe that the record is inconclusive on the matter anyway.) [37]

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[37] Sea-Land's explanation for this expense item amounting to $607,547 for "freight brokerage" is contained at pp. 12-15 of its reply brief. GVI/PRMA argue most vigorously that this item is unlawful and should be deleted from Sea-Land's pro forma projections. See GVI/PRMA opening brief, pp. 105-106. This matter apparently was raised in the protests before the case was docketed by the Commission. If the Commission wished to determine the issue, it would have so specified as it did fuel, labor costs, etc. Under P.L. 95-475 and Commission case law, I am supposed to narrow issues and strictly rule out litigation of issues not specified in the Commission's Order of Investigation. See *TMT Corp.—General Increase in Rates*, cited above, 19 SRR 985. In any event, Sea-Land claims that the item is a legitimate sales expense paid to

Sea-Land's forecasting technique is described by its witness O'Donnell and is based upon information gathered by its sales force located in the field, which information is given to the marketing staff. The marketing staff reviews the data, broken down by cargo movements under different categories and by port movements. The data is modified in accordance with company goals, so that the forecast becomes in fact the goal. Revenue projections are calculated by adjusting actual revenues generated during the historical year to reflect rate increases and the forecasted cargo volume. (See GVI/PRMA opening brief, pp. 99-100, quoting Sea-Land's witness O'Donnell and BIE's opening brief, p. 60, citing O'Donnell and BIE witness Coleman.) Notwithstanding GVI/PRMA's swipe at this technique, it appears to be another means for a carrier to estimate its future and to make its forecasts, in effect, its goals. Companies may formulate their estimates as goals just as they prepare operating budgets for the forthcoming year which become, in effect, their goals. The real problem is with Sea-Land's pessimistic outlook for the North Atlantic where it projects a loss of 2,723 containers. The main resaons why Sea-Land estimated such a loss in the North Atlantic is the fact that PRMSA will re-establish its full service with the return of the *PONCE* and *SAN JUAN* which will operate during the pro forma year (although, as seen, the *PONCE's* return was delayed by several months). Sea-

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its own agent, Sea-Land of Puerto Rico, Inc., and that the problem is only where to place the item in the G.O. 11 accounts, which heretofore have never been criticized by the Commission in this respect. BIE totally ignores the issue. I believe that the item in question may indeed look suspiciously like brokerage but without full litigation on the issue I cannot make a finding which, after all, may mean that Sea-Land had violated law. For such a serious matter, Sea-Land should have been placed on notice by the Commission in its Order. Finally, as Sea-Land notes, even if the questionable item is delected from Sea-Land's allowable expenses, the results seem to show that its return would only be 16.3 percent, still within an allowable rate of return. See Sea-Land's reply brief, p. 15.

Land believed that these two ships would divert some traffic from Sea-Land. However reasonable that may have seemed to Sea-Land, GVI/PRMA, as well as BIE, have persuasively pointed out serious shortcomings. GVI/PRMA argue convincingly that PRMSA's increase in capacity in the North Atlantic does not necessarily mean a decline by Sea-Land there, that even if so, Sea-Land itself is putting a somewhat larger vessel into service there, that its competitors have not been operating at capacity, therefore merely putting new ships into the North Atlantic does not mean that Sea-Land will lose cargo to them, and finally, in the South Atlantic where Sea-Land's competitors TMT and PRMSA deploy the largest increments to vessel capacity, Sea-Land projects a substantial increase of 29.2 percent rather than a decrease, which under its theory, it should have done in the South Atlantic. GVI/PRMA opening brief, pp. 99-105. BIE also effectively shows that Sea-Land's pessimistic forecast for the North Atlantic is unsupportable on the record and generally agrees with GVI/PRMA's criticisms. BIE's opening brief, pp. 60-64. I agree with the criticisms. However, as Sea-Land notes, since the dispute centers on the pessimistic estimate of a loss of 2,723 containers, Sea-Land, with the assistance of BIE's witness Coleman has added back the lost containers. The results are shown in a table on pp. 38-39 of Sea-Land's opening brief and as Appendix A to BIE's opening brief. This table shows that under the highest projection and lowest expense estimates, Sea-Land's return would be only 16.28 percent, well under Dr. Nadel's recommendation of 18.5 percent and slightly over BIE's incompletely explained recommendation of 16 percent. However, since BIE believes that Sea-Land has underestimated its fuel and administrative and general expenses, the table also shows that Sea-Land's return would only be 16.04 percent after adding back the 2,723 containers in the North Atlantic and adjusting Sea-Land's understated fuel and other expenses, using BIE's inflation factor of 14.9 per-

cent. If the fact that Sea-Land has permanently canceled the rate increases in the Canadian tariff which had been under investigation is considered, these returns would be lowered further.

I must leave this discussion again because of time pressures to conclude that I find Sea-Land's North Atlantic forecast to have been unduly pessimistic and not sufficiently supportable. However, after appropriate adjustments are made to add back the forecasted loss of 2,723 containers and to adjust for understated expenses, I agree with BIE that Sea-Land's return will not be excessive.

TMT/GCML's Revenue and Cargo Projections

No one disputes GCML's projections and indeed no one focuses on GCML at all in this case. BIE supports GCML's methodology and has no dispute with GCML. BIE's opening brief, p. 65. Accordingly, I will pass on to TMT. Only GVI/PRMA attack TMT's projections and do so for limited reasons relating among other things to TMT's estimated capture of traffic from GCML, which has reduced its services, and for an alleged overstatment in TMT's rate base.

As for TMT's methodology, i.e., basic techniques employed to make its forecasts, they appear to be as reasonable conceptually as any other carrier's. The technique is explained in detail in TMT/GCML's opening brief, pp. 19-22, and also by BIE (BIE's opening brief, pp. 64-65). Very briefly, since I have no time to discuss it further, TMT based its pro forma year on a forecast of calendar year 1981. TMT reviewed data drawn from the twelve-month period ended September 1980 categorized by types of unit, compared to prior forecasts and adjusted to eliminate the effects of extraordinary occurrences. TMT made further adjustments to reflect assumptions regarding the competitive environment, service considerations, and economic trends through consultation with TMT's

marketing and operational staffs. Specific factors considered were drastic service reductions by GCML, redeployment of equipment, and increased availability of specialized equipment. TMT adjusted historical revenue data to reflect a projected increase in cargo volume and the rate increases. TMT projected an increase of 17.39 percent from the cargo volume it transported in the historical year. (See BIE's opening brief, pp. 64-65.) As TMT explains, this methodology is based upon management's budgets prepared in the regular course of business. TMT/GCML's opening brief, p. 19.

BIE has no quarrel with TMT's methodology or results. BIE states that the methodology "appears to be appropriate" and that the projections "appear to be reasonable." BIE, therefore, "does not dispute TMT's or GCML's forecast. . . ." BIE's opening brief, p. 65. GVI/PRMA, however, have serious problems with TMT's forecast results mainly relating to TMT's estimates of the volume of cargo that it will attract from GCML as a result of GCML's diminished service. I also have serious problems because of inscrutable changes in testimony by TMT's witness Baci and by equally inscrutable and cavalier responses by TMT to serious contentions by GVI/PRMA's witness Rozynski and by GVI/PRMA's opening brief, pp. 107-109. Accordingly I do not find that TMT has adequately explained that it will only attract 80,000 tons from GCML rather than the 100,000 tons, which it originally told the Commission it would attract. Moreover, since I have been given no assistant who can recalculate the effect of another 20,000 tons of cargo for TMT in its pro forma year, an effect which GVI/PRMA claims would add $1.2 million additional revenue, I cannot find that TMT's increases will fall under an allowable rate of return of 16 or more percent or indeed what its return would be or that its forecast is reliable. Accordingly, what I have done with regard to BIE witness Copan, I will do for TMT. TMT will have to provide detailed explanations to the Commission as to why its later

estimate of 80,000 tons should be accepted instead of its original estimate of 100,000 tons which it submitted to the Commission by verified statement of the same Peter Baci who later testified that only 80,000 tons of GCML's former carryings would be attracted to TMT. I now explain briefly why I believe that the present state of the record does not persuade me that TMT's later estimate is reliable and why I find that TMT's response to the contentions of GVI/PRMA has not impressed me as being persuasive or as careful as the seriousness of the GVI/PRMA charges warrant.

GVI/PRMA's problems regarding Mr. Baci's changes of testimony and their inability to understand why the Commission should accept Mr. Baci's later statement that TMT would garner only 80,000 tons from GCML rather than 100,000 tons are clearly and concisely set forth in GVI/PRMA's opening brief, pp. 107-109. I have the same difficulty as do GVI/PRMA.

Although the matter of the change in Mr. Baci's testimony concerns me more than the other matters raised by GVI/PRMA (unexplained application of its cost-escalation factor to certain expense items, payment of management commissions to its parent company followed by management supervision fees), I am also troubled by these other problem areas. Generally, it appears, as GVI/PRMA have noted, that TMT has taken a somewhat relaxed attitude and has not bothered to present rebuttal testimony or to provide adequate explanations in its post-hearing briefs. This does not mean that TMT is required to write a 262-page brief, as did GVI/PRMA, but the abbreviated and rather cursory treatment of the GVI/PRMA charges which are based upon substantial criticisms raised by GVI/PRMA's witness's testimony, in my opinion, is not satisfactory when dealing with proposals by TMT to ask the Commission to allow TMT to assess ratepayers additional millions of dollars. Another basic problem I have with TMT's rather offhanded replies

to GVI/PRMA in its brief is that, unlike other carriers like PRMSA and Sea-Land, TMT's briefs do not even provide me with a table showing its pro forma income statement and rate base. Instead I am supposed to go burrowing through workpapers and exhibits to resolve critical areas of dispute. In a pressure cooker such as I am under, I need more enlightment than TMT has chosen to provide. Instead of doing this, however, TMT answers two of GVI/PRMA's most important contentions (the 80,000 ton reduction and the double counting of management commissions) in brief footnotes in its opening and reply briefs.

I cannot, therefore, give my imprimatur to TMT and find that on the record as I now see it, TMT has fully survived the criticisms of its case. Very briefly, I call the Commission's attention to pages 103-106 of GVI/PRMA's reply brief and to pp. 56-57 and pp. 107-109 of GVI/PRMA's opening brief. As seen, TMT has not provided full and complete explanations in several important areas, most especially why TMT changed its testimony to reduce its projected tonnage by 20,000 tons and why its management commissions to its parent Crowley Corporation are not excessive because of double counting.

As shown in GVI/PRMSA's briefs, TMT, through Mr. Baci, submitted a verified statement to the Commission apparently dated November 26, 1980, which told the Commission that TMT would gather approximately 100,000 tons of cargo from GCML which was reducing its services substantially. In his direct testimony submitted after this case was docketed, however, this figure is reduced to 80,000, a substantial change. The explanations for this important change become confusing and mystifying. In Mr. Baci's direct testimony, he explains that the 80,000 figure derives from an estimated reduction of GCML's Puerto Rican cargo in the amount of 100,000, of which 80 percent was estimated to go to TMT. See direct, Baci, pp. 4-5, quoted in GVI/PRMA's opening

brief, p. 108. No further testimony was offered by Mr. Baci on rebuttal to explain the discrepancy. The answer to this serious question as to why a change was provided by TMT in its opennig brief in a footnote which TMT states later in its reply brief, "fully answered" the GVI/PRMA's charges. See TMT, opening brief, p. 23 n. 7, and reply brief, pp. 4-5. TMT's footnote explanation states that Mr. Baci's first submission to the Commission was in error and gives an explanation as to why the correct figure is 80,000 tons rather than 100,000 tons which even appears to be different from that which Mr. Baci provided in his direct testimony. In the footnote TMT states that the 100,000 tons, of which TMT would attract 80,000, is shown by the difference between 190,-573 tons carried by GCML in the year ending September 30, 1980, and the 90,903 tons which GCML projected to carry in 1981. In the post-docketed testimony of Mr. Baci, however, he stated that the 100,000 ton figure was derived by an estimate of the effects of the reduction of GCML's services. See quoted testimony on page 108 of GVI/PRMA's opening brief As GVI/PRMA point out in their reply brief, however (p. 104), in his pre-docketed statements made to the Commission Mr. Baci made no reference to these GCML tonnage figures mentioned in the footnote in TMT's opening brief. Rather Mr. Baci had referred to specific commodities carried by GCML in its historic year which he considered to be of the type suitable for carriage by TMT. This reference led GVI/PRMA's witness Rozynski to rebut the analysis on the basis of the latter's study of the particular commodities, leading to Mr. Rozynski's conclusion that TMT had understated its revenue by $1.2 million. (GVI/PRMA's reply brief, pp. 104-105.)

The shift from specific-commodity analysis to general tonnage figures to explain a substantial change in Mr. Baci's testimony is not adequately explained by a brief footnote reference which cavalierly tosses off GVI/PRMA's criticism. Moreover, I am puzzled as to why

BIE, which has taken a strict position that a carrier's case should be frozen to its pre-docketed submission, should now have no problem with this very substantial change in TMT's case, which apparently emerged only after the case was docketed. Why does not BIE now insist that TMT should be held to its pre-docketed case of 100,000 tons? I would welcome BIE's explanations in BIE's exceptions. Perhaps there is an adequate explanation which TMT can provide on some type of obvious-error theory. However, there has been a significant change in numbers and in explanation between the pre-docketed and post-docketed statements of Mr. Baci and the matter is simply too serious to toss off in cavalier footnotes. I, for one, am not prepared to make findings under such circumstances that TMT has adequately carried its burden of proof and leave the matter for the Commission to resolve if TMT can provide an adequate explanation other than in footnotes.

In order to determine whether there was some explanation for BIE's acceptance of the decline from 100,000 to 80,000 tons between the original verified statement of Mr. Baci submitted to the Commission and the direct testimony of Mr. Baci submitted after the case was docketed by the Commission, I consulted the direct testimony of BIE's witness New, a staff accountant with the Commission's Office of Financial Analysis. Rather than clarify the matter, however, the testimony makes it even more confusing. Mr. New, who, like all other staff witnesses, is well qualified and furnished helpful evidence, first stated that he reviewed TMT's workpapers and exhibits submitted before the case was docketed as well as the protests and found that "the aforementioned items included in TMT's financial projection appear to have been appropriately calculated." (New—direct testimony, p. 2). He also listed five errors found in the TMT papers which had to be corrected. However, he also stated that TMT's data which he reviewed were "unverified." (*Id.*)

Of greater significance, however, for this particular problem, is the explanation or lack of it for the 20,000-ton discrepancy. Mr. New testified on this point as follows:

> TMT anticipates gaining approximately 80,000 tons of cargo formerly handled by GCML, which is reducing the size of its operations and will discontinue calling at Lake Charles, Louisiana, a port served by TMT. (It should be noted that the statement of Peter Baci (page 2, 3) indicates that TMT expects to gain approximately 100,000 tons of cargo from GCML. However, TMT's financial projection assumes a gain of 80,000 tons from GCML. *TMT has acknowledged that the 80,000 figure is correct. Therefore, since this error appeared only in Mr. Baci's statement, the projected revenue calculation has not been adjusted.*) New—direct testimony, p. 3. (Emphasis added.)

Therefore, the only explanation for the discrepancy is that "TMT has acknowledged that the 80,000 figure is correct" and no adjustment to TMT's projections was deemed necessary "since this error appeared only in Mr. Baci's statement. . . ." Perhaps such an explanation might have sufficed if the Commission had not specifically ordered me to determine whether TMT's projections are "sufficiently accurate" and whether TMT used "appropriate methodology." (Issues Nos. two and three.) I cannot determine that the new 80,000 figure given by Mr. Baci is "sufficiently accurate" merely because "TMT has acknowledged that the 80,000 figure is correct" and that the figure 100,000 is not accurate simply because it appeared only in Mr. Baci's original, verified statement. Which Baci statement is accurate and, if the second statement is the correct one, what evidence proves it correct other than TMT's acknowledgement that the 80,000 figure is correct. What does such acknowledgment mean?

I do not mean to impugn the quality of Mr. New's work. On the contrary, he showed that he made five important corrections to TMT's original submissions, all of which served to reduce overstated items of expense and items in TMT's rate base, so as to ensure that TMT would not be overcompensated by the rate payers. However, since the Commission wants to know whether the TMT projection is "sufficiently accurate," I need more evidence and explanation than the record now contains before I can make findings about the accuracy of TMT's projections. Since the burden was and is on TMT to prove this point about the accuracy of its later 80,000-ton projection and TMT provided such little evidence and argument despite the specific criticism on this point made by GVI/PRMA, TMT will now have to satisfy the Commission on this point. It has not satisfied me.[28]

Since the matter of the 100,000 and 80,000 tons appears to me to be the most significant problem area regarding TMT, I have spent what little time I had discussing it. However, TMT has also used the footnote technique to answer another of GVI/PRMA's criticisms, namely, the possible double counting by TMT for management commission and supervision fees to TMT's parent, Crowley Maritime Corporation. See GVI/PRMA's reply brief, p. 105. Again, TMT's answer is contained in a footnote. (TMT/GCML's reply brief, p. 6 n. 2.) TMT's short answer is that TMT was only following prescribed G.O. 11 terminology. I think that GVI/PRMA

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[28] It may be argued on exceptions that even if one adds back the 20,000 tons, TMT will still fall under an allowable rate of return. That may or may not be. However, that does not justify the failure to prove the point because the Commission wants to know the answers to the issues it has framed. As the case of *TMT Corp.—Proposed General Increase in Rates*, 19 SRR 985, cited above, illustrates, the Commission has the right to obtain answers to questions it frames in its Orders of Investigation, even if it appears that the answers will have no effect on the ultimate question of the reasonableness of the carrier's rates.

and the ratepayers deserve a more thorough answer than that and that TMT should provide it to the Commission or be found not to have carried its burden of proof.[29]

I have no further time to linger on the inadequacies of TMT's explanations. I would, however, if I had more time, explore more fully GVI/PRMA's additional contention that TMT/GCML applied its cost-escalation factor to unidentified expense items and the contention that there is an improper $7.4 million overstatement of TMT's rate base. TMT has ignored these criticisms in its briefs, unlike PRMSA and Sea-Land, who attempted to answer all of the attacks made upon their cases. Without explanation by TMT and with no time to dig out what its explanations might have been, I would suggest that TMT provide answers in an adequate fashion to the Commission on its exceptions.

Respondents' Cost Escalation Factors—Non-Labor, Non-Fuel

The fourth issue framed by the Commission's Order is as follows:

> (4) Have Respondents properly calculated their cost projections covering labor, fuel, vessel maintenance and administrative and general expenses, and, if not, what are the proper calculations?

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[29] TMT states in its reply brief (p. 6) that "the obligation of the carriers in this proceeding is to establish that their projections in the specified categories are reasonably reliable, not to respond to every question asked by protestants' experts." But TMT has the statutory burden of persuasion. Moreover, the Commission docketed this proceeding to permit GVI/PRMA an opportunity to show the validity of their contentions, as the Order mentions. I do not believe that TMT's rather offhand attitude is appropriate in rate cases affecting so many people in Puerto Rico and the Virgin Islands.

This issue has broken down into two main categories, first, the general inflation factor to be used for non-labor, non-fuel expenses and second, the fuel expenses calculation. As to the question of labor, vessel maintenance, and administrative and general expense, there appears to be no specific problem. Labor expenses are derived from labor contracts which were made available to protestants and to the Commission's staff. Vessel maintenance, as such, was not litigated, nor was administrative and general expense except regarding certain TMT and Sea-Land expenses, discussed above. These two items fall under the controversy as to what general index of inflation should have been used. Since the Commission's Order does not explain what problems the Commission had with these particular items and the parties did not litigate the issues, I will pass directly to the real issue, namely, whether the carriers used appropriate inflation factors to project their non-labor, non-fuel expenses. Here again, as in the case of the different rate-of-return recommendations, there is a variety of recommendations.

The different indices and percentages which each party employed are summarized in PRMSA's reply brief, p. 76 and by GVI/PRMA in their opening brief, pp. 45-50. Again, protestants' calculations and recommendations, like their recommendations for rate of return, are at the low end while the carriers are somewhat higher. BIE, which accepted the carriers' various calculations, falls in the range of the carriers' annualized rate of inflation. (See PRMSA's reply brief, p. 76.) As annualized, GVI/PRMA would hold the carriers to an inflation factor of 7.2 and later 6 percent, the carriers suggest 9.9 to 10.4 percent, while BIE would accept 10.4 percent. The following table prepared by PRMA and found in its opening brief (p. 118) is very helpful as a visual aid and is set forth below:

INDEX AND FORECAST	U. S. G. N. P. Implicit Price Deflator (Price Deflator) as Forecasted by Data Resources Inc.	Producer Price Index for Industrial Commodities Less Fuels and Related Products and Power (PPI-ICLF) as Forecasted by Data Resources Inc.	Producer Price Index for Industrial Commodities Less Fuels and Related Products and Power (PPI-ICLF) as Forecasted by Sea-Land	Consumer Price Index (CPI) as Forecasted by Citibank	Producer Price Index for Finished Goods (PPI-FG) as Forecasted by V. I. /Mfrs.	Producer Price Index for Finished Goods Less Energy (PPI-FGLE) as Forecasted by V. I. /Mfrs.
Party	PRAISA	BIE	Sea-Land	TMT	V. I. /Mfrs.	V. I. /Mfrs.
Escalation Factor	17.27% 1/ / 20 months	17.3% 2/ / 20 months	14.9% 3/ / 18 months	4/	12% / 20 months 5/	10% / 20 months 6/
Annual Rate	10.4%	10.4%	9.9% 7/	14.2% 8/	7.2%	6%

1/ D - Vasquez, p. 5.

2/ S - Fratter, p. 16.

3/ Sea-Land actually forecasted a 13.90% escalation factor. D - Zim, p. 8. However, Ms. Fratter noted that Sea-Land had erred in making its forecast and that the actual forecast should have been 14.91%. D - Fratter, p. 12. Sea-Land accepts this correction.

4/ T. M. T. did not make an 18 or 20 month forecast.

5/ D - Andic, p. 21.

6/ R - Andic, p. 28.

7/ Sea-Land's original erroneous projection worked out to a 9.9% annual rate.

8/ T. M. T. used a 10% escalation factor/12 months instead of 14.9% as forecasted by Citibank. Ms. Fratter notes that it was proper for T. M. T. to reduce the Citibank forecast. D - Fratter, p. 10, n. 10.

As seen from the table, the differences in the various escalation factors stem from the choice of index and the adjustments made by the individual party. Included in the table are the U.S. Gross National Product (GNP) Implicit Price Deflator utilized as a forecast basis by Data Resources, Inc. (DRI), an independent, widely-used service, as adopted by PRMSA; forecasts derived from one type of the Producer Price Index as made by DRI and adjusted by BIE; forecasts derived from types of the Producer Price Index as made by Sea-Land and GVI/PRMA; and forecasts derived from the Consumer Price Index by Citibank, used by TMT with adjustments.

Time does not permit me to describe these various factors. Good explanations are provided in the briefs of the parties. Briefly, however, BIE explains in its brief why the staff does not generally challenge the carriers' calculations. As explained in its brief (BIE opening brief, p. 67), the most appropriate measure for a carrier's non-fuel, non-labor expenses would be an inflation factor designed specifically for the maritime industry. Such an index is not published, however. Therefore, it is necessary to use a proxy or surrogate index that is most closely aligned to the ideal maritime index of inflation. BIE's expert witness Fratter testified that a Producer Price Index for Finished Goods Less Food and Fuels would be the closest proxy for the ideal but that no independent service publishes such an index. However, an independent service, DRI, does make a forecast based upon a PPI for Industrial Commodities Less Fuel and Related Products, which Ms. Fratter recommends as a suitable proxy. Such a forecast has the advantage, furthermore, of being free from bias since it is prepared by a recognized, independent service, DRI. BIE explains in more detail why such a forecast prepared by an independent service is reliable for application to the carriers and why fuel and food are properly eliminated from such an index. (See BIE opening brief, pp. 68-70.)

BIE and the Commission's staff accept the carriers' calculations with slight modifications. Thus, BIE finds Sea-Land to have understated its inflationary factor by use of a simplistic trend-line type of analysis and makes a correction so as to raise the Sea-Land factor from an annualized rate of 9.3 percent, as originally calculated by Sea-Land, to 9.9 percent. (BIE opening brief, pp. 70-71.) BIE accepts PRMSA's calculations (10.4 percent annualized) although BIE believes that PRMSA used a conservative, i.e., understated index, the GNP Implicit Price Deflator, which, although prepared by the independent service, DRI, is an index derived from numerous other price indices and suffers from other problems. (BIE opening brief, p. 73.) However, since the GNP Price Deflator is historically a conservative index, it would tend to understate PRMSA's cost increases. Therefore, BIE accepts PRMSA's escalation factor of 10.4 percent (stated as 10 percent in BIE's opening brief, p. 74).

BIE accepts TMT/GCML's use of an inflation factor in the amount of 10 percent annualized. Although the index employed by TMT was the Consumer Price Index, which BIE shows to be unsuitable for carriers' use for a number of reasons (BIE opening brief, p. 77), the end result, as adjusted, was within the range of reasonableness and approximated that of PRMSA which was probably conservative. I agree that the CPI is not suitable for the reasons BIE explains (it is a "market basket" compendium of consumer items including clothing, shelter and medical services which are not relevant to a carrier's business). However, the result, as adjusted by TMT, conforms to results produced by more reliable indices.

I have only a very limited time to discuss GVI/PRMA's contentions and recommendations. As PRMSA states in its reply brief (p. 79): "No one agrees to the V.I./Mfrs.-sponsored indices except the V.I./Mfrs." That, of course, is not sufficient reason to reject it. There are,

however, such reasons, and they are succinctly mentioned by PRMSA, among others (PRMSA reply brief, pp. 79-80). Essentially, GVI/PRMA's escalation factor, originally annualized to only 7.2 percent, later revised to drop to 6 percent, is not based upon an independent service such as DRI but is based upon the work of Dr. Andic who employed indices which are weighted by food and fuel factors. (BIE, it should be noted, strongly supports the use of an index prepared by an independent service such as DRI in place of an *ad hoc* study done by a particular carrier with its tendency to build in biases.) PRMSA explains in greater detail why Dr. Andic's incredibly low figure of 7.2 percent (later, 6 percent), well below every other estimate, is unreliable. (PRMSA opening brief, pp. 122-124.) Briefly, Dr. Andic, although purportedly starting from the PPI for finished goods in her first version, managed to lower the figure although the PPI index, according to BIE's witness Fratter, should have produced a higher result. What Dr. Andic did is similar to what she also did in regard to her alternative projection of PRMSA's cargo volume and revenue forecast, discussed earlier, namely, take the most recent months and assume that the same trend would continue into the future. In other words, according to BIE witness Fratter, Dr. Andic assumed that an inflation rate can be forecasted based on the rate that has occurred in the most recent past. (See rebuttal testimony—Fratter, p. 8, quoted in PRMSA's reply brief, p. 123.) Ms. Fratter calls the Andic methodology "naive." Moreover, Dr. Andic's result was much lower than the 10.5 percent annual rate of inflation predicted for both 1981 and 1982 by DRI, the source from which Dr. Andic purportedly drew her data. Finally, in Dr. Andic's second study, in which she reduced her earlier prediction from 7.2 percent to 6 percent, she used the PPI index for finished goods less energy. But this index is heavily weighted with food so that it is not really relevant to carriers and, as BIE witness Fratter showed, the Andic methodology of pro-

jecting a 20-month period from a five-month period, if used one year earlier, would have predicted an inflation factor way out of line with reality. (PRMSA, reply brief, p. 124.)

I conclude that the record supports the inflation factors employed by the carriers with modifications discussed above and that, as in the case of the cargo volume and revenue projections, GVI/PRMA's unique and alternative methodology utilized by Dr. Andic does not withstand analysis. Furthermore, because of her continual revisions and unique results, I find Dr. Andic's work to be quick and resourceful but increasingly suspect. BIE has been even more severe with GVI/PRMA's expert witnesses.[30]

The Fuel Cost Increase Issue

Another difficult question to solve in this already difficult case is what to do with the carriers' fuel cost predictions. A special problem with this particular estimate is, of course, the volatile, erratic price changes in oil and the corresponding need to employ a reasonably accurate methodology in Commission rate cases which rely upon the one-year forecast method. Again, I regret that the tremendous pressures of time and my lack of technical assistance make it impossible for me to discuss this complicated issue in more detail. Perhaps the Commission, which has given itself 43 days after the last pleadings (replies to exceptions to my Initial Decision)

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[30] Thus, in commenting upon the shorecomings of GVI/PRMA's witnesses in their calculations of inflation factors, BIE states:

> The Bureau submits that not only does the blatant methodological error detailed above effect (sic) the inflation factor developed by GVI/PRMA's witnesses, but it draws into serious question the alleged expertise of these witnesses in this crucial area. Perhaps more telling, however, is GVI/PRMA's witnesses' inability to comprehend the mistake that they had made when confronted with criticisms of their methodology. (BIE reply brief, p. 69 n. 35, citations to the record omitted.)

are filed, can devise a better solution but the problem taxes the wisdom of my ancester, King Solomon.

The problem is that the carriers had to make their forecasts of increases in the price of oil back in November 1980 or before, approximately when they first submitted their cases to the Commission. Now that we are, at the time of writing, in July, the crazy oil market continues to amaze and dumbfound. Every day one can read different predictions. First one authority says that the Saudis will call off their game with OPEC and curtail production so as to raise prices. Then another authority claims that the Saudis have to maintain current production to finance domestic projects. Both PRMSA and GVI/PRMA attach conflicting cartoons and newspaper articles. The point is that no one really knows how long the current oil glut will last. Consequently, if we try to apply the most current daily prices of oil to any carrier's original forecast to make a new forecast, there is no way of knowing that such a forecast is more reliable than that which was originally submitted, even if it were conceptually sound to assume that later data would always supply a more reliable base merely because such data were more recent.

There are a few other basic problems here as well. First, there is the fact that the Commission has discontinued its bunker fuel surcharge program by which it had required special accounting on a forecasting as well as after-the-fact-reckoning basis. The Commission discontinued this program on the grounds that oil prices had supposedly stabilized. See *Bunker Surcharges in the Domestic Offshore Trades*, 20 SRR 401 (1980), revoking 19 SRR 406. But having announced that oil prices have stabilized, that meant that carriers could seek compensation for increases in fuel costs as part of their general-rate-increase cases. That is exactly what has happened in this case. This leads to the second problem, which I mentioned briefly earlier in connection with the carriers'

revenue and cargo volume projections, namely, that Commission rate cases, based on testing carriers' forecasting methodologies, are prospective, not retroactive. In other words, to the largest extent possible, in order to assure responsible forecasting by carriers, they are not allowed to produce *ad hoc*, i.e., after-the-fact justifications. Similarly, if protestants are allowed to rely upon later, current events, this is a form of retroactive, *ex post facto* type of decisionmaking so that even if the carrier utilized the best techniques available at the time it filed its rate increases, it would be forced to make refunds and pay interest at something like 20 percent because of later events which the carrier could not have reasonably anticipated.

The particular solution in this case emerges after one has considered the relative merits of GVI/PRMA's alternative methodology to ascertain whether it will withstand analysis, even assuming that later events should be allowed to supplant a carrier's original case and the facts which the carrier had to rely upon at the time of submitting that case. A close analysis of GVI/PRMA's alternative calculations for PRMSA's fuel cost forecasts shows, as do the analyses of protestants' previous alternative projections and calculation of inflation factors, that they once again do not hold up. The various deficiencies in what otherwise might appear to have been a plausible alternative using a more current base, are well stated in PRMSA's reply brief, pp. 80-104. Time will not permit me to explain in detail how PRMSA shows the weaknesses in protestants' alternative methodology. I can only briefly touch upon the highlights and refer the reader to the complete explanation in the cited portions of the reply brief and to PRMSA's opening brief.

As explained in PRMSA's opening brief (pp. 125-127), PRMSA used a forecast based upon the forecast of Average Refiners Acquisition Domestic (A.R.A.D.) prices by Data Resources, Inc. (DRI), the same widely-used service

discussed above in connection with the inflation factor issue. PRMSA then compared A.R.A.D. forecasts with its own experience with oil prices using recognized statistical measuring techniques. BIE witness Straube examined PRMSA's forecasting technique and found it to be reasonable. GVI/PRMA's witness, Dr. Andic, however, attacked the PRMSA methodology and substituted her own, as she did previously in connection with cargo volume and revenue projections and inflation factors. Here again her attacks on PRMSA seem to pass through a variety of unsupportable allegations and changing rationales. Dr. Andic contends that a better base for prediction would be the March 1981 DRI forecasts rather than the November 1980 base used but her contentions fall apart under scrutiny. I cannot take the time to describe the manner in which PRMSA, in my opinion, has undermined Dr. Andic's work and credibility in PRMSA's opening and reply briefs. Among many other things, PRMSA has shown that Dr. Andic incorrectly accused PRMSA of applying a simplistic trend-line analysis to the DRI data. This is especially interesting since Dr. Andic herself appears to have used a trend-line analysis elsewhere. Moreover, even using the March 1981 DRI forecast, PRMSA has shown that the results would be more pessimistic than PRMSA had originally forecast and that the only reason why Dr. Andic is able to reduce PRMSA's forecasted cost increases is by use of techniques that are full of mistakes. As PRMSA shows, although supposedly using the March 1981 forecast, Dr. Andic actually ignored it by employing a percentage factor of 22.2 percent which was supposed to cover steady monthly increases in costs from first quarter 1981 to first quarter 1982 under another simplistic trend-line analysis. Also Dr. Andic's starting point of two weeks in March 1981, although sounding appealing because it is more current, leads to woefully distorted results, a danger that results whenever a single starting point is selected for projection purposes.

Essentially PRMSA has relied upon a recognized forecasting service, DRI, a technique which, as I have noted, BIE agrees to be reasonable while GVI/PRMA and its witness, Dr. Andic, once again substitute different data and make their own *sui generis* calculations, make unsupported allegations about PRMSA's evidence, change grounds, and end up looking worse for the effort. The statement made by PRMSA that Dr. Andic simply is not qualified to make predictions as to fuel costs because of her lack of experience in the field seems to be supportable. Moreover, the statement that she cannot compete with a service such as DRI coupled with the fact that the trend-line analysis method which she did employ has been shown in fact and in theory to be faulty, lead me to conclude that GVI/PRMA's attacks on PRMSA's forecasts of fuel cost increases cannot be sustained and moreover, to conclude that the credibility of Dr. Andic has again been significantly undermined.

As to the fuel cost projections of Sea-Land and TMT/GCML, protestants seem to say nothing in their briefs, having concentrated on PRMSA. BIE, however, finds nothing wrong with these other carriers' projections. Indeed, BIE states in its opening brief that both Sea-Land's and TMT/GCML's projected average costs for the pro forma year of $29.69 and $29.45 per barrel which were below PRMSA's predictions, were probably too low. (See BIE's opening brief, pp. 71, 76.)

The Issue of Economic Hardship

The final issue framed by the Commission's Order is as follows:

> (5) Do the proposed rate increases impose an economic hardship on the affected interests represented by Protestants and Intervenors, and, if so, to what extent should this factor be considered in determining a reasonable rate of return for the carriers?

The parties claiming that the rate increases will cause economic hardship are protestants GVI/PRMA and the Chamber of Commerce of Puerto Rico, which did not take an active role in the case and did not file post-hearing briefs. Protestant DTPTC based its case on contentions similar to those of GVI/PRMA regarding rate of return, cargo volume projections, cost escalation factors, etc., not on economic hardship. Although the parties commented on this issue, however, only GVI/PRMA seem to present specific recommendations, because of alleged economic hardship, which are, of course, that the rate increases be rolled back to something like 11.2 percent from the 16 to 18 percent level.

The main factual issues falling under this general question stem from the testimony of individual shippers and business persons who testified in St. Thomas and San Juan that the rate increases affected them adversely. The legal issue concerns the question whether the Commission can change a carrier's return which is otherwise shown to be reasonable for reasons relating to economic hardship and, more particularly, to hardship affecting individual shippers in a general-revenue case.

There is considerable dispute as to whether the subject rate increases will cause economic harm on individual shippers and consumers, PRMSA and other carriers arguing that the shippers' problems are caused by many other factors and that many shippers are doing better financially than the carriers are. Moreover, PRMSA and Sea-Land ask me to apply sanctions against shippers who testified on behalf of GVI/PRMA because they did not furnish answers to questions which both PRMSA and Sea-Land had, by previous arrangement approved by myself, asked counsel for GVI/PRMA to have brought to their individual attention. The overall conclusion I draw from this area of the record is that the rate increases are an aggravation to the shippers, as are any price increases, but that I cannot find that these rate increases are the main

cause of business problems which individual shippers are facing. Moreover, because of the failure of most of them to prepare themselves to answer the specific questions which might have indicated how well their businesses were doing and how the specific rate increases resulted in cost increases to them, I find that they have, without intending to, weakened their individual cases because I have no idea whether some are able to absorb cost increases that may have directly or indirectly resulted from the rate increases out of healthy profits or whether they are being victimized by other factors.

I again regret that I have so little time to devote to this subject which concerns individual human beings whom I observed at the hearings in St. Thomas and San Juan and that I cannot find that this proceeding will be the vehicle through which they can enjoy some relief from the inexorable march of inflation. My problem is that their testimony, while entitled to careful consideration and sympathy, seems directed at the issues not in this type of case, even if I were persuaded that the rate increases were causing them substantial problems. Thus, before I mention the factual testimony, I will discuss basic principles of law and assume that the individual shippers have shown substantial economic harm because of the general rate increases.

A very basic problem here is the principle that the particular problems affecting individual commodity rates are generally not relevant to cases involving the issue of a carrier's need for additional revenue in a so-called general-rate-increase or general-revenue case. In general-revenue case after general-revenue case, individual shippers customarily march in to testify and customarily march out with no success. Basically they are in the wrong case because their evidence concerns factors peculiar to their own commodity rate and not factors affecting a carrier's rate of return on its rate base. Despite many years of general-revenue cases before this Commission, it never seems to fail that shippers consume their time trying to litigate ir-

relevant issues in the wrong type of case. The Commission has recognized the difference between a general-revenue case and an individual commodity case. In Docket No. 77-12, G.O. 16, Amdt. 20, 17 SRR 1221 (1977), the Commission amended its Rule 41, 46 CFR 502.41, to clarify the fact that a "complainant" in an individual-commodity rate case was not the same thing as a protestant in a general-revenue case. The Commission tried to advise shippers that they should concentrate their efforts in fighting individual rates based upon transportation factors peculiar to the carrying of those commodities and other relevant factors involved in single-commodity cases rather than waste their time in general-revenue cases which, like the present one, are heavily involved in rate-of-return and general revenue and cargo-volume predictions. The Commission stated:

> However, the question of reasonableness of a particular rate is still an essentially different issue which should be litigated in consideration of transportation factors such as cost of service, value of service, etc., which focus upon the particular commodity in question. (Footnote citations omitted.) All too frequently, however, shippers interested in obtaining a determination that a particular commodity rate or rates are unjust or unreasonable engage in the futile endeavor of contesting evidence pertaining to the carrier's need for increased overall revenue armed with little more than evidence concerning anticipated effects on movements of their particular commodities. As the Commission remarked in our previous notice, these efforts usually consume time needlessly and are essentially irrelevant in a general-revenue case. The answer to this problem is to avoid the wasteful practice of litigating issues in wrong proceedings. The proposed rule would require protestants to file their own complaints or, under the proper circumstances, petition the Commission to institute investigations concerning a particular rate or rates. In either event,

> the resulting proceeding would proceed to develop truly relevant evidence pertaining to revenue, transportation, and ratemaking factors relating to the specific rate in question. Docket No. 77-12, 17 SRR at pp. 1225-1226.

In the footnote citation omitted from the above quotation the Commission cited numerous authorities which held that general-revenue cases are essentially different from those involving specific commodities. Among the many cases are: *Chicago Board of Trade v. United States*, 223 F.2d 348, 351 (D.C. Cir. 1955); *Alcoa Steamship Co. Inc.—General Increase in Rates in the Atlantic/Gulf Puerto Rico Trade*, 9 F.M.C. 220, 222 (1966); *Matson Navigation Company—Rate Structure*, 3 U.S.M.C. 82, 87-88 (1966); *Wool Rates From Boston to Philadelphia*, 1 U.S.S.B. 20, 21 (1921); Locklin, *Economics of Transportation* (Irwin, Inc. 7th ed. 1972), pp. 421-422.

Even if this case were an individual-commodity investigation rather than general-revenue, the law is not clear that the Commission could depart from recognized principles of ratemaking and order rate reductions because particular businesses or industries claimed hardship. PRMSA cites a number of these cases holding against such orders in its opening brief (p. 156).[81] This entire area of law concerning how far a transportation regulatory agency can determine reasonableness of rates (usually individual rates) is not free from confusion, however. See discussion in Locklin, *Economics of Transportation*, cited above, pp. 445-447. That author, after observing that the I.C.C. had, in some specific commodity cases, ordered reductions to relieve the problems of a particular business or industry, also observed that many other cases were opposed and concluded:

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[81] These are: *Eastbound Intercoastal Lumber*, 1 U.S.S.B. 608, 623 (1936); *Puerto Rican Rates*, 2 U.S.M.C. 117, 119 (1939); *Increased Rates on Sugar*, 7 F.M.B. 404, 413 (1962); *Pacific Coast/Puerto Rico Rate Increase*, 7 F.M.C. 525, 534 (1963); *Matson Navigation Co.—Rates on Pallets*, 7 F.M.C. 771, 772, 775 (1964).

> The general conclusion to be drawn from these cases is that although the Commission sometimes recognizes the economic and social effects of certain rates, it is on insecure ground if it modifies rates otherwise reasonable out of deference to these consequences. To give weight to considerations of welfare, economic policy, and the like would hardly be consistent with the statement of the Supreme Court that the standards set up by the Interstate Commerce Act are "transportation standards, not criteria of general welfare." Locklin, p. 447 (footnote citation omitted.)

BIE takes strong issue with respondent TMT/GCML which has argued that specific-commodity issues are not relevant in general-revenue cases. BIE develops a well-researched discussion of relevant law which elaborates upon the necessity to consider the interests of the public and allows agencies to utilize a zone of reasonableness so that agencies can select a rate within that zone which will reflect the proper balance between investor and consumer. (BIE opening brief. pp. 77-82.) (This position is interesting coming from BIE since BIE earlier advocated a single, fixed rate of return rather than a range like Dr. Silberman's range of 19-20 percent.) BIE also quite properly recognized a line of cases which establish that a carrier or utility must be allowed to earn a decent return comparable to other industries in order to maintain the quality of its service, otherwise the public suffers later from higher rates, reduced services, or even lack of service. (This, again, is interesting as applied to the carriers in the Puerto Rican/V.I. trades since over half of their fleets consist of ancient World War II ships. (See Sea-Land's opening brief, p. 8, citing Dr. Nadel's direct testimony, p. 33, table 7.)

Having expressed the above principles well, however, BIE concludes that carriers are entitled to make earnings comparable to those earned by other U.S. corporations having similar risk and that no reductions should be ordered unless they would prevent "severe and harm-

ful economic dislocation." (BIE opening brief, p. 82.) Such dislocation, however, has not been shown on this record, according to BIE.

Even if BIE's contention that "severe and harmful economic dislocation" must be shown to justify lowering a carrier's otherwise reasonable rate of return, I note that the bulk of the cases cited by BIE are either individual-commodity cases or utility cases. I know of no purely general-revenue case before the Commission in which the Commission has ordered a reduction of a tariff across-the-board because a number of individual shippers have contended that individual rates were harmful. However, as Locklin observes, in a case BIE cites, this Commission has in at least one individual commodity rate case followed a doctrine of permitting high rates on luxury items to subsidize low rates on food and subsistence items and in the Puerto Rican trade. See *Reduced Rates on Autos—North Atlantic Ports to Puerto Rico*, 8 F.M.C. 404 (1965). Moreover, the Supreme Court has permitted an agency to reduce a carrier's rates below compensatory levels in the public interest provided, however, that the carrier was permitted an adequate return from its traffic as a whole. This is the famous case of *Baltimore & Ohio Railroad Co. v. United States*, 345 U.S. 146 (1953) (reduced rates on fresh fruits and vegetables prescribed by the I.C.C.).

What the above discussion shows is that there might be some relief available to the individual shippers if they would concentrate on seeking individual commodity rate relief or if their problems fell in the limited area of the Commission's and Supreme Court's decisions in *Reduced Rates on Autos* and the *Baltimore & Ohio* cases, cited above. Even without litigation, however, as the many current tariff pages filed with me by respondents show, and as Sea-Land contends, general rate increases do not hold up uniformly because individual shippers often negotiate roll-backs on the commodity rates which concern these shippers.

GVI/PRMA develops a similar discussion on applicable law to that presented by BIE. (See GVI/PRMA opening brief, pp. 128-135.) As did BIE, GVI/PRMA argue cogently that analogous case law holds that this Commission should consider factors other than cost of service, such as the impact on the economy, and should strive to fix the lowest reasonable rate of return. Again, most of the cases cited are utility cases but there are some I.C.C. cases and GVI/PRMA also cites another F.M.C. decision in which this Commission recognized that it would permit higher rates on certain items in a tariff to support lower rates on subsistence items. See *Reduced Rates on Machinery From U.S. to Puerto Rico*, 10 F.M.C. 248, 250-251 (1967). I think it is interesting, however, that after discussing all of this precedent and contending that the record shows specific economic hardship on individual shippers as well as general adverse effects on the economies of Puerto Rico and the Virgin Islands, in the final analysis, GVI/PRMA's case rests upon its evidence, discussed earlier, that PRMSA should be limited to no more than a 15 percent rate of return, that its cargo volume and revenue projections are too pessimistic, and that its forecasted expenses, especially for fuel, are overstated. If all that is so, what does one do with the evidence of economic hardship, assuming it is probative? Is one supposed to find that all GVI/PRMA's rate of return and related technical evidence passes over the line between non-persuasive and persuasive not on its own merits but because of the additional consideration of economic hardship? I do not mean to downplay GVI/PRMA's concerns over increased costs in ocean transportation. No one welcomes cost increases and the continual inflationary spiral under which our economy has been groaning for so long. However, GVI/PRMA, besides arguing that the Commission should set the lowest fair rate of return within a zone of reasonableness,[22] presumably 15 percent put forth by

[22] This principle, namely, selecting the lowest possible rate of return in a zone of reasonableness, while sounding appealing, ap-

their witness Brennan, do not specify why Mr. Brennan's study nor Dr. Andic's alternative forecasting methodologies should be considered to be more reliable than any of the carriers' or BIE's corresponding technical evidence merely because of evidence of adverse economic impact, again assuming that such evidence is persuasive. (I note that the other active protestant in this case, DTPTC, did not bother to argue the issue of economic impact but confined itself to the technical rate of return and projection issues.)

I think that what I have just said corroborates my earlier observation that evidence of specific economic harm is far more relevant to an individual commodity rate case or perhaps to a case involving an investigation of a carrier's tariff structure, i.e., relationship among different rates in the tariff, to determine if there is some way in which value-of-service factors would warrant individual rate adjustments. However, this is not that type of case nor, for that matter, was this case docketed to determine whether there was any way in which carriers could increase their productivity, i.e., improve their efficiencies, so as to absorb some of the increases in costs which they are experiencing owing to the inexorable

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pears, however, to conflict with another idea that various authors espouse, namely, the desirablility of adjusting allowable rates of return to motivate carriers or utilities to improve their efficiencies. In other words, if a carrier is being operated inefficiently, a regulatory agency may hold its allowable return to a lower point whereas an efficiently-run carrier may be permitted a higher return within the zone of reasonableness. This proceeding is not designed to question the carriers' efficiencies but, considering the extreme age of the carriers' combined fleet in the Puerto Rican trade, a hold-down in the latest possible rate of return might not take into account the carriers' inability to offset inflation with increased productivity, not to mention the carriers' ability to replace their aging ships. For a brief discussion of the idea of adjusting allowable rates of return to motivate improvements in efficiencies, see Bonbright, *Principles of Public Utility Rates*, pp. 262-265.

march of inflation.[23] Even GVI/PRMA do not deny that PRMSA and the other carriers need some rate increase (although on brief GVI/PRMA now argue that TMT's and perhaps even GCML's increases should be disapproved for failing to sustain their burden of proof (GVI/PRMA reply brief, p. 106; opening brief, p. 128).) Their position is that the rate increases should be reduced to something like 11.2 percent so as to give the carriers a rate of return not to exceed the 15 percent which their witness Brennan espoused.

Although my above discussion indicates that there may be little that this particular proceeding can do to relieve the economies of Puerto Rico and the Virgin Islands when the record shows that GVI/PRMA's alternative evidence does not withstand careful analysis and is less persuasive generally than the evidence presented by the carriers (with the possible exception of the TMT problem discussed above), the Commission may, of course, feel otherwise and may wish to do something in this proceeding that would specifically address itself to the people who testified in this case in St. Thomas and in San Juan. Therefore, I commend to the Commission's attention the summary of testimony set forth in the briefs of the parties (GVI-PRMA opening brief, pp. 118-128; BIE opening brief, pp. 83-87; PRMSA opening brief, pp. 143-156).

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[23] Before everyone jumps all over this decision in exceptions, calling this observation "dicta," I will note that there is no evidence or suggestion that any carrier is inefficiently run. Indeed, it would be astonishing if PRMSA, owned by the Government of Puerto Rico, had a policy of oppressing the welfare of its own citizens. There is no suggestion of any such idea by anyone. What seems to be more likely is the probable fact that PRMSA, like the other carriers, is employing ancient ships, and is experiencing the impact of inflation which it cannot absorb without further endangering its ability to remain financially viable and that PRMSA believes that unless it can seek to maintain a certain revenue and income position, the people of the Commonwealth may be faced with the prospect, as BIE observed, of reduced service or decline in quality of service.

I cannot, in the brief time allotted to me, describe in much detail the testimony of the witnesses who appeared in St. Thomas and in San Juan. The briefs of all the parties, cited above, give a good overall description, however. Generally the testimony demonstrated a great concern over increases in prices, especially increases in the cost of ocean transportation on which the two islands so vitally depend. The witnesses all appeared to be most sincere in their beliefs and in certain instances the particular rates with which they were concerned (e.g., Ms. Creque's comparison of rates from Japan compared to rates from the U.S.A. mainland on certain types of automobiles) were somewhat amazing. GVI/PRMA, in their brief, summarize all of this economic testimony and argue that it shows persuasively how harmful the increases in ocean freight rates are to the individual businesses and the economy of the islands generally. However, other observers reach different conclusions. BIE, for example, although conceding that the economic testimony indicating that adverse impact is "generally valid," (BIE opening brief, p. 87), believes the testimony to show that ocean-rate increases are not the entire story, by any means, as far as adverse impact is concerned in an inflationary environment. BIE states:

> Ocean freight rates, like most other costs, have increased dramatically over the preceding years. Inflation is a fact of life. However, as noted above, the Bureau believes that something more than a suggestion that increased freight rates, like increased costs of all varieties, will contribute to the overall rise in costs and prices is necessary to compel a reduction in what would otherwise be considered a fair rate of return for the respondent carriers. (BIE opening brief, p. 85.)

Although BIE pointed out some technical deficiencies in the general economic impact testimony given by Mr. Castillo, President of PRMA, and by Dr. Francis, a well

qualified economist testifying on behalf of GVI, PRMSA points out greater deficiencies in the testimony of these and other witnesses (PRMSA reply brief, p. 105, with references contained therein). Sea-Land points out similar deficiencies. Generally PRMSA points to evidence showing that many of these businesses are in better financial shape than the carriers (and thus presumably better able to absorb inflationary cost increases than are the carriers). PRMSA describes in detail how the Virgin Islands suffer from a variety of economic problems of which cost of ocean transportation is only one (e.g., failure to diversify, heavy reliance on the tourist industry, failure to generate backhaul cargo). PRMSA argues that these deficiencies in the Virgin Islands' economies have led to the demise of carriers serving the Virgin Islands. (I note that the Virgin Islands can be served by foreign carriers, as an exception to the cabotage laws, yet this fact does not seem to ameliorate their problems.) PRMSA also cites evidence it introduced showing negligible increases on certain food items attributable to ocean freight rate increases, problems in the distribution system in the Virgin Islands, and evidence showing that the economy is too complex and is affected by too many factors to single out ocean rates as a cause of economic hardship. (PRMSA's opening brief, pp. 150-151.) PRMSA shows another side to the oral testimony given in St. Thomas and in San Juan. (PRMSA's opening brief, pp. 151-156.) First, PRMSA argues that only one witness in St. Thomas (Ms. Creque) brought relevant documents with her to the hearing, documents which had been requested through counsel for GVI/PRMA, earlier.[34] But aside from that omission, PRMSA shows that

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[34] Both PRMSA and Sea-Land ask me to apply sanctions against some of these witnesses because of their failure to bring relevant documents to the hearing so as to permit thorough cross-examination. I specifically advised the parties that I would consider sanctions upon request, to ensure that the witnesses would be prepared to answer questions. The sanctions now requested, namely,

the testimony also indicates that the various businesses represented by the witnesses were doing better financially than any of the carriers whose rates are under investigation. Even as to Ms. Creque, who runs an automobile dealership in the Virgin Islands (and, incidentally, I found Ms. Creque to be an exceedingly impressive witness), the problems from which she suffers cannot be reduced simply to increases in ocean freight rates (e.g., heavy local taxes, GM's increases in prices, high financing rates). Other witnesses were shown to suffer from a variety of problems, again not related to ocean freight rates.

None of the above discussion is intended to show lack of concern for these witnesses. I believe, however, that it confirms what I have said above, i.e., that even if high ocean freight rates were the main problem affecting them (and this was by no means clearly shown), their testimony would be much more relevant in an individual-commodity rate investigation, not a general-revenue case. No matter how impressed I was by Ms. Creque, for example, I do not see how I can convert GVI/PRMA's rate-of-return and cargo volume and cost projections, which have so many inherent defects described above, into reliable studies merely because Ms. Creque or Mr. Jacobson, another exceedingly impressive witness who manufactures garments in Puerto Rico, would welcome rate reductions. Moreover, especially in the case of Mr. Jacob-

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specific adverse findings and preclusionary rules, seem excessive and unnecessary. I note the great pressures under which all parties operated and have little desire to punish the well-intentioned residents of the Virgin Islands when it is not clear that they were at fault. I do note their failure as well as the effective cross-examination which was conducted notwithstanding the lack of documents but I cannot see how such sanctions are really necessary in view of the effectiveness of the examination. The failure to bring the documents or otherwise be prepared does, however, leave me with the impression that the documents would confirm the carriers' contentions, after consideration of evidence which PRMSA and Sea-Land did elicit during cross-examination.

son, an important manufacturer, I do not see why PRMSA cannot negotiate with him to assist him competitively rather than face him as an opposing witness in a general-revenue case. It was obvious at the hearing in San Juan that PRMSA, a government-owned carrier, treats citizens of Puerto Rico (who are also American citizens) with great respect and deference. It would make no sense for PRMSA to price one of its best customers out of the market.

I must conclude my limited discussion with an expression of sympathy for residents of the Virgin Islands and Puerto Rico who, like all of us, are suffering from the aggressive inroads of inflation but who have a greater dependence on ocean transportation. However, I cannot see how this proceeding is the appropriate vehicle to afford them relief and must conclude with the observation that I have made before, namely, that individual shippers generally should devote their efforts to relief in other than general-revenue cases, as a myriad of Commission general-revenue cases in the past have repeatedly shown. I hope, as with all Americans, that our country can defeat inflation, which is their real problem as it is with the carriers, and that in the meantime consideration can be given to an appropriate type of proceeding or negotiation for them. Perhaps the best way to emphasize my point regarding the difference between a general-revenue and single commodity rate case is to refer to the lengthy quotation from the Supreme Court's decision in *Aberdeen & Rockfish R. Co. v. SCRAP*, 422 U.S. 289, 311-314 (1975), contained in TMT/GCML's opening brief, pp. 27-28. After drawing the distinction between the two types of cases the Court approved an I.C.C. order which invited parties complaining about individual rates or groups of rates to utilize different administrative remedies than general-revenue investigations. The Court then stated:

> [U]nder the Louisiana case, the general rule has been that the ICC may confine its attention in gen-

eral revenue proceedings almost entirely to the need for revenue and to any other factors that relate to the legality of the general increase as a whole; and it follows a fortiori that if attention is given to other issues, that attention may be of a limited nature.

The Matter of Use of Current or Revised Data in Lieu of Carriers' Pre-Docketed Data

I have alluded to a problem which has occurred in previous rate cases both under P.L. 95-475 and before, which problem has proven to be troublesome and for which a definitive answer seems elusive. This concerns BIE's contention that it is essential in rate cases, which must be expedited under P.L. 95-475 time schedules, that carriers and all parties confine themselves to the carriers' pre-docketed cases submitted to the Commission and that other parties essentially do likewise. In other words, BIE objects to the admission of any evidence such as current data which is dated after the original submissions except perhaps for corrections of obvious arithmetic errors. BIE believes that this problem is so critical for all Commision rate cases that "it is essential that a definitive statement resolving this question be issued in this proceeding." BIE reply brief, p. 56.

I do not doubt that this problem has been a recurrent thorn in the sides of litigants in Commission rate cases and that a "definitive" statement would be very helpful. However, I am not sure that a statement engraved in cement can be fashioned in this case or in any case. Unfortunately, time and other reasons do not permit me to give the matter the attention it deserves but, as I have said, the Commission, which enjoys a 43-day period (from August 14 to September 26, 1981) between the last pleading and final decision may be able to improve upon my suggestions.

All active parties have commented on BIE's suggestion but there is no unanimity of opinion. Even protestants do not agree with themselves. Respondents TMT/GCML support the idea of restricting the case to consideration of facts presented by carriers and to resist the temptation of looking at later events to use hindsight as a means to criticize or overturn carriers' cases. (TMT/GCML reply brief, p. 7.) Protestant DTPTC supports the idea of holding carriers to the submissions they made with their general rate increases. (DTPTC reply brief, p. 6.) But respondents PRMSA and Sea-Land, for once joined by protestants GVI/PRMA, reject such a rigid position. (PRMSA's reply brief, pp. 44-53; Sea-Land's reply brief, pp. 19-20; GVI/PRMA's reply brief, pp. 91-94.) These parties, in varying degrees, argue in favor of some degree of flexibility instead of what has been called the BIE's "freeze" or "frozen case" theory.

BIE mounts a very well crafted and sincerely argued appeal that for the sake of making P.L. 95-475 work the way it was supposedly intended, the Commission definitively establish that all cases will be, in effect, frozen to the pre-docketed submissions and that later current data not be allowed to enter the record. Its arguments are set forth in detail in its opening brief, pp. 38-48. It relies upon statements made by Commissioners to the congressional committee before enactment of P.L. 95-475 as well as Commission precedent and practical considerations.

All parties, even those opposing BIE's "freeze" theory, seem to agree that the basic principle of Commission rate cases is to hold the carrier to its original submissions on the apparent theory that the Commission is testing the reasonableness of the carrier's decision to file a general rate increase and should not allow the carrier to engage in *post hoc* rationalizations by introducing later operational data. However, as with any extreme position, adherence to it could lead to absurd results which PRMSA and GVI/PRMA show. For example, unless some al-

lowance is made for major factual changes, for example, a lost ship or a discontinuance of an entire area of service, or a cancellation of a rate increase, all parties would be required to continue to litigate phantom issues. In other words, parties would continue to pretend that carriers should or should not be allowed a return on a sunken ship or compensation for expenses relating thereto or whether a general rate increase should continue to be litigated even when it has been cancelled (as for example, Sea-Land's cancellation of the rate increases in its Canadian tariff under investigation). It is hard to believe that even BIE would argue that the Commission could not consider such major events but would prefer to waste its time determining whether rate payers should pay phantom increases or phantom expenses.

The problem is not with such obvious examples of major catastrophes or cancellation of tariff increases (although BIE still seems to refuse to consider the fact that Sea-Land did cancel its Canadian tariff increases which had been under investigation).[35] The problem, as usual, is with the gray areas. In this case, for example, PRMSA wants the Commission to consider events which occurred after it had filed its pre-docketed case, such as the delay in redelivery of the *PONCE* and the effect of Reagan budget cuts. (I have already decided earlier that I would consider the effects of the late delivery of the *PONCE* but that the evidence of the effects of the Reagan budget cuts was too speculative. Therefore, I cannot find that my comments in this troublesome matter should be considered as pure dicta.)

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[35] But even BIE does not wish to litigate issues concerning PRMSA's projections under its *ATLANTIC BEAR* case since the *BEAR* apparently will not be acquired by PRMSA, as I have noted earlier. But this fact was not known until after PRMSA made its original filing on December 5, 1980. Even BIE does not expect everyone to litigate complicated issues about the poor *BEAR* while she was still in her cave and would probably never come out.

If BIE's rigid position were to be adopted, then I would have rejected considerable evidence as a matter of law because it was based upon current data or data which developed after the case was docketed. For example, I would have had to reject Dr. Andic's alternative cargo volume and revenue projections as a matter of law because they were ultimately based upon a more recent actual year ending in March 1981 and the same holds true for her fuel cost projections which utilized March 1981 fuel prices as a base. I would even have to reject some of BIE's own witnesses' evidence, for example, perhaps even BIE witness's Fratter's recalculation of Sea-Land's cost inflation factor because she utilized data running through December 1980 or later, after Sea-Land had submitted its case. Indeed so extreme is BIE's position (or perhaps so principled is BIE) that it urges me not to consider evidence given by its own witnesses. (See BIE reply brief, pp. 55 n. 29, asking me not to consider testimony of three of the Bureau's witnesses, Straube, New, and Coleman relating to updated fuel prices.)

I find that BIE's position, no matter how tempting and easy, is simply too extreme. At the least, as has happened in previous rate cases (see, e.g., Docket No. 79-55, *Matson Navigation Co.—Bunker Surcharge*, 19 SRR 1065) allowance should be made for obvious mathematical or methodological errors (which BIE concedes) and for obviously better evidence which is not reasonably subject to dispute, as both the case cited shows and Sea-Land argues. I agree, as I believe do all parties, that it is essential to hold carriers to the fullest extent possible to their original cases submitted in justification of their rate increases. Otherwise we are not testing the reasonableness of the carrier's decision to file rate increases but rather are applying retroactive, *ex post facto* type decisionmaking. If we do that, why not simply wait until the end of the actual year and require an accounting

based upon actual results? But this is not the basic theory of Commission rate cases and when such an idea has been applied, it was done only in connection with bunker surcharges under the Commission's discontinued program (but even then not fully abandoning the prospective nature of the case). In the legislative history portions to P.L. 95-475 and case law cited by BIE, no one said that there can never be any change to the carriers' original submission. For example, the House Report (cited in BIE opening brief, p. 40) stated that the carrier's financial data must "essentially be the data relied on by the carrier throughout the expedited hearing." Commissioner Morse told the congressional committee considering what became P.L. 95-475 that the carrier's financial data would have to be "essentially the date (sic) relied upon by the carrier throughout the expedited hearing." (BIE opening brief, p. 40.) Commissioner Moakley did state that "we limit the carrier to the financial information that he started with and he has to say with it." (*Id.*, p. 41.) But then Chairman Daschbach stated that the carrier "cannot make major changes or additions to that evidence which would require further analyses, cross-examination and possibly, rebuttal." (*Id.*) Even before enactment of P.L. 95-475, the Commission attempted to put restrictions on carriers' changing their original cases but still allowed some flexibility. In Docket No. 75-57, *Matson Navigation Co.—Proposed Rate Increases, etc.*, 18 SRR 1441 at 1444, cited by BIE (BIE opening brief, pp. 44-45), the Commission stated that the test year projections submitted by the carrier with its initial tariff filing must be the "starting point" and "should be amended only in unusual circumstances." The Commission went on to say that the original figures "were the basis for the carrier's decision to increase its rates" and allowance of revisions "contravenes the Commission's policy of expediting general revenue inquiries and hinders effective participation by persons opposed to rate increases." (*Id.*) I conclude that although the legis-

lative history emphasizes the need to hold carriers to their original cases to the fullest extent, it does not mandate an unbending rule of extremism in this regard and does not require the Commission to bury its head in the sand when major events occur later which are not reasonably subject to dispute and which make a carrier's original projections impossible of being a reasonable approximation of the future. Both GVI/PRMA and PRMSA, in near agreement for once, formulate a rule of reason. GVI-PRMA would allow carriers to revise their original justifications to the extent of offering probative, relevant evidence which could not previously have been proffered, of new facts that materially "impact upon" the issues under investigation, subject to the rights of opposing parties to test the new evidence in whatever manner would be appropriate. (GVI/PRMA reply brief, pp. 93-94.) PRMSA, elaborating upon the test which the Commission adopted in Docket No. 79-55 (from my Initial Decision in that case), would establish a "flexible rule of reason" by which the presiding judge could "balance the equities and decide the admissibility of the proffered data." (PRMSA reply brief, p. 49.) Essentially PRMSA's rule would permit admission of largely uncontested data which was not subject to constant change if it were introduced early enough in the proceeding to allow all parties to test is reliability.

I do not know if it is possible to create a fixed rule in this case which will not have to undergo revision in some future case. Furthermore, such a rule change might better be promulgated in a rulemaking proceeding which would revise Rule 67 so that the entire public can offer its comments, not merely the parties to this proceeding. In this case, however, at the least I would admit and have admitted evidence if it makes obvious corrections to earlier errors and if the new facts are so major and not subject to reasonable dispute that they will make the carriers' projections no longer capable of being a reasonable approximation of the future and if, furthermore,

other parties have had opportuniity to offer their rebuttal evidence or arguments. Such was the case with the delayed return of the *PONCE*, a fact which is not subject to dispute and to the recalculations which PRMSA offered in time for them to be challenged. I also have considered the fact that Sea-Land has canceled its rate increases in its Canadian tariff, a fact beyond dispute, and has offered recalculations early enough before my decision for other parties to challenge. I have not, however, considered proffered evidence concerning Reagan budget cuts or pending court cases because they are too speculative, i.e., they are not sufficiently reliable and probative and do not permit me to make anything other than general, conjectural findings.

I agree that it would be extremely helpful and would relieve future litigants of much uncertainty, burden and expense if the Commission would announce a "definitive" cutoff rule for new evidence. Since, however, this particular matter has not been set down for determination in the Commission's Order and since the Commission has, in past cases, instructed me that my additional comments which were made in the spirit of helpfulness have been "dicta" and were not necessary to my decision (See Docket No. 77-19, *Consolidated Forwarders Intermodal Corporation*, Order Partially Adopting Initial Decision, June 15, 1981), I will confine myself to the rulings which I have made which I believe were necessary. As for a rule for the future, I commend to the Commission the formulations of GVI/PRMA, PRMSA, and Sea-Land, if the Commission chooses to adopt any of them or to institute a rulemaking proceeding to revise Rule 67.

Ultimate Conclusions and Critical Recommendations

Because of the enormous pressures imposed by the time restrictions described above, the massive size and scope of this case, and the mammoth briefs, I have been compelled to limit my discussion of the issues and to refer

frequently to the briefs of the parties and to the portions of the parties' briefs with which I have agreed.[36] Since there are many hundreds of pages of briefs (GVI/PRMA's brief alone totalling over 380 pages), it is impossible to discuss or even mention every matter raised by every party. Under different circumstance, I would have addressed many of the minor contentions in order to assist the Commission in resolving the issues that they raised if they reappear on exceptions. However, I have had to make a decision as to priorities in order to meet the tight time schedule and have therefore omitted discussion of contentions that I have found not to be material, i.e., whose resolution would not have affected my ultimate decision, no matter how interesting the particular contentions may have appear to be in the briefs. In many other instances, furthermore, I have not found the proponents of these many minor arguments to have been persuasive after considering the particular rebuttals. Having travelled so far through such an enormous record in so short a time, however, I believe it is imperative that I summarize my ultimate conclusions and call the Commission's attention to matters which are critical to future rate cases conducted under the requirements of P.L. 95-475.

There are five critical matters that I must emphasize. The first refers to my basic evaluation of protestants' cases presented in this proceeding. The remaining four relate essentially to the great need for future reform if the Commission is to conduct rate regulation efficiently so that minimal cost will be imposed on all litigating parties. In short, these ultimate conclusions and critical recommendations are as follows:

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[36] Moreover, because of the unprecedented time pressures in such a massive case, minor errors and inconsistencies might appear in this decision from time to time which I have not had full opportunity to screen out. The relevant portions of the briefs cited, however, should provide a ready resolution of any resulting confusion.

(1) Protestants' cases have been tested and found wanting in most respects as compared to the more persuasive cases and rebuttal arguments and evidence presented by respondent carriers and by BIE.

(2) The Commission must amend and clarify General Order 11 in numerous critical respects in order to eliminate repetitive and unnecessarily expensive rate proceedings.

(3) The Commission should, in its Orders of Investigation, strive to specify issues and advise parties carefully as to the specific reasons why the Commission believes that a formal proceeding is necessary to explore any particular matter.

(4) The Commission should formulate an evidentiary rule as to if and when later evidence, current data, and the like can be entered into the record and considered after the case is docketed.

(5) The Commission should encourage shippers and carriers to negotiate individual rate problems on humanitarian or value-of-service principles under the *Baltimore & Ohio* and *Reduction in Freight Rates on Automobiles* doctrines to the extent they can be applied. In this way the Commission can call a halt to the unfortunate practice of encouraging individual shippers to spend their time needlessly in general-revenue proceedings where their evidence is almost invariably unrelated to the broad financial issues which are characteristic of those proceedings. I now briefly explain.

(A) Protestants (mainly GVI/PRMA) have been given a fair opportunity to present a reliable, effective case. However, in almost every major respect their evidence and arguments were shown to be significantly defective and ultimately incapable of offseting the persuasiveness of respondent carriers' and BIE's cases.[87] In many in-

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[87] This statement holds true for the major portions of GVI/PRMA's case as I have mentioned. However, despite the funda-

stances protestants GVI/PRMA utilize inherently deficient, ad hoc methodologies or attempt to rehabilitate their questionable evidence by employing innumerable ingenious arguments in huge post-hearing briefs, sometimes even abandoning or ignoring the rationale underlying the evidence itself in such efforts. This massive effort in their briefs, however, simply cannot elevate their evidence above its level of non-persuasiveness nor eliminate its many inherent deficiencies and its aura of ad hoc expediency. The major examples which illustrate the above statements are GVI/PRMA's evidence on the issues concerning PRMSA's cargo volume projections, fuel cost projections, the non-fuel, non-labor inflation factor, and GVI/PRMA's alternate calculation of an allowable rate of return. The first three areas were covered by GVI/PRMA's witness, Dr. Andic, a qualified economist whose productivity and resourcefulness are remarkable. However, Dr. Andic's alternative projection for PRMSA's cargo volume substitutes her ad hoc methodology, namely, use of a later period of time adjusted by questionable elevations, in place of PRMSA's market-survey methodology which has been shown in the past to be very reliable and which has been found to be sound by the Commission's staff. Moreover, she makes upward adjustments to her selected base period of time which are contrary to certain calculations made in her earlier testimony which was based upon a different methodology. Indeer, her second

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mental fact that they simply have not presented reliable and probative evidence sufficient to offset the justifications of the carriers and the persuasiveness of BIE's evidence, as my decision has shown, I believe that GVI/PRMA have made telling points in connection with such things as Sea-Land's gloomy cargo volume forecast in the North Atlantic, TMT's failure to explain the decline from 100,000 to 80,000 tons in its projection, PRMSA's attempt to quantify the effects of the Reagan budget cuts, Sea-land's Dr. Nadel's award of unprecedented premiums totalling 5 percent to reach a rate of return of 23.5 percent, and BIE's rigid, impractical position on freezing all evidence to time periods before the rate increases were filed.

methodology, which appears to represent a second attempt to fashion an acceptable alternative projection to PRMSA's cargo volume forecast, incredibly arrives at exactly the same number of trailerloads (174,101) that her different methodology had produced in her earlier testimony, now apparently abandoned (but adopted by protestant DTPTC before its abandonment by Dr. Andic).[38] Dr. Andic's fuel-cost projections are inherently less sound than PRSMA's, being based upon a limited time period in March 1981 as a base and an adjustment by trend-line analysis that has been persuasively shown by BIE's staff expert witnesses and by others to be naive and simplistic, and there is other evidence showing that PRSMA's reliance on an independent forecasting service was reasonable. (For a good summary, see PRSMA's reply brief, pp. 80-88.) In this area of fuel price forecasting, furthermore, I find the most typical of GVI/PRMA's approaches, namely, to seize upon current events and create an ad hoc methodology during the heat of litigation and try to persuade that such method is superior through lengthy but well created arguments on brief which ring with indignation and outrage. However, after the rebuttal arguments and evidence are thoroughly considered, it appears that GVI/PRMA's case is reduced to relying upon current uncertainty and methodologically unsound statistical adjustments in place of a far more thorough independent forecasting service. It comes down to the questions whether Dr. Andic should be relied upon more than DRI, Inc., are current data always a better base for forecasting than earlier data in such a complicated area, and can the superficially appealing arguments that PRMSA's actual oil prices have declined as of March 1981 because of a current oil glut be allowed to cloud sound and dispassionate forecasting. GVI/PRMA's envigorating emotional arguments in their

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[38] The serious flaws in Dr. Andic's revised forecast are cogently exposed in PRMSA's reply brief, pp. 68-70; 73-75.

reply brief (pp. 67-72) are emotionally stimulating but ultimately do not persuade me that PRMSA was wrong in relying upon DRI, Inc. Nor do they persuade me that the oil glut will continue forever or that PRMSA's forecasts cannot possibly be attained even as an approximation. Even as I write this, conflicting reports continue to come in. For example, the Washington Post of July 12, 1981, carried a front-page story which acknowledges that the Saudis are still trying to bring down OPEC prices (to their $32 per barrel as opposed to OPEC prices of $36 to $41 per barrel) but also states that production has declined this year, that spot prices "have recently been rising slightly, a sign the glut may be finally starting to dry up." This article, of course, is not evidence, but neither are the many emotional contentions made by GVI/PRMA that urge me to find that PRMSA's original forecast has become totally overtaken by events. As I said earlier, the oil situation is simply too volatile and erratic for anyone to seize upon any particular day or month for projection purposes (a situation possibly justifying restoration of something like the Commission's bunker surcharge approach for the future). GVI/PRMA, however, argue vigorously and forcefully to the contrary.

Finally, Dr. Andic's cost-inflation factor for PRSMA's non-fuel, non-labor expenses was shown to be amazingly low (7.2 or 6 percent annualized), far below any other indicator, and to be based upon an index which is heavily weighed by food or fuels, giving unsound and distorted results, again after Dr. Andic had made her own adjustments.[29] GVI/PRMA's witness on rate of return, Mr. Brennan, while well qualified like all the expert witnesses more or less, is heavily influenced by ideas associated with the cost-of-capital rather than the comparable-earnings test, which latter test the Commission has adopted in General Order 11 and seems to have given

[29] PRMSA reply brief, pp. 76-80, and its references, provides another good summary of the shortcomings affecting Dr. Andic's analysis.

testimony in another rate case involving a utility which is inconsistent with portions of his present testimony. More importantly, perhaps, based on his testimony, GVI/PRMA struggle unsuccessfully to persuade that the four water carriers are less risky than utilities (such as even AT&T) and that, accordingly, no factors for risk should be allowed for such carriers above his reference group of comparable industrial companies. On brief, GVI/PRMA strive to save this shaky evidence with a new rationale based on the idea of preservation of the integrity of assets which their witness himself did not even articulate. Moreover, to support their arguments against allowing any adjustments to PRMSA's rate of return on account of risk, GVI/PRMA consumed time not in attempting to make their own measurements of risk by recognized objective techniques, three of which were employed by PRMSA's witness, Dr. Silberman, to show high business risk for PRMSA, but instead in continually quibbling about the measuring techniques. Furthermore, even though PRMSA's witness and FRMSA, as well as BIE's witness Copan and Sea-Land's expert witness Nadel, all seek no allowance for PRMSA on account of financial risk caused by PRMSA's total debt capitalization, GVI/PRMA make arguments about supposed harm to the public from this type of capitalization which are not only irrelevant under the circumstances but are based upon a misapplication of the so-called "prudent investment standard." Finally, even when GVI/PRMA have made telling points with which I have agreed to one extent or another, the necessary changes to the carriers' cases do not affect the outcome of the case. For example, Sea-Land has adjusted for its unduly gloomy decline in volume in the North Atlantic and still shows its increases to be reasonable, PRMSA's speculations as to the Reagan budget cuts has been rejected but PRMSA still shows the justification for its rate increases, I have rejected BIE's "frozen case" theory to allow consideration of Dr. Andic's use of current data but she fails to persuade, I have rejected

consideration of Sea-Land's Dr. Nadel's total of five percent premiums added onto his 18.5 percent recommended rate of return, yet other evidence supports Sea-Land's contention that its increases are within a zone of reasonableness, I have rejected Dr. Silberman's "surrogate" G.O. 11 formula, as GVI/PRMA urge, and have found little support for his method of elevating benchmark rate of return to compensate for PRMSA's tax-exempt status, yet other evidence supports a rate of return for PRMSA of 17 to 18 percent or so. However, as to the remainder of their case concerning their alternative calculations for rate of return, cargo volume and revenue projections, fuel cost projections, and general inflationary factors, as I have indicated, the overall conclusion to which I am inescapably drawn is that GVI/PRMA are struggling to eradicate the effects of a well-prepared and well-presented case by PRMSA by improvising new methodologies and arguments as the proceeding goes on, hoping to find one methodology or argument that will ultimately appear to be persuasive. I find their efforts to have been diligent, massive, and resourceful but increasingly expedient in appearance and ultimately unsuccessful. In short, GVI/PRMA were unable to show that PRMSA had utilized defective methodology and had prepared a defective, irresponsible case when it decided to file its general rate increases. I think that GVI/PRMA and DTPTC have had a fair opportunity to demonstrate the superiority of their cases or at least the failure of PRMSA and the other respondents to mount a persuasive case but they have not succeeded notwithstanding the amazing zeal and ingenuity poured into 380 pages of post-hearing briefs by GVI/PRMA's counsel nor even the fact that GVI/PRMA have had the benefit of several months of actual data and hindsight (the use of which, however, is subject to serious attack, especially by BIE, as a matter of law).[40]

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[40] In all fairness, I should mention that PRMSA has itself sometimes struggled to elevate shaky evidence from the speculative to the probative. This occurred when PRMSA's witness, Mr. Lopez-

(B) It is imperative that the Commission, once and for all, clarify and revise General Order 11 in certain critical areas. Otherwise there will be no end to the continual, repetitive litigation of rate-of-return issues which unfairly burdens the Commission's staff carriers, protestants, and ultimately the public. There simply is no reason why there should have been six different calculations of an allowable rate of return after so many years of Commission rate regulation and especially after the enactment of P.L. 95-475, which specifically instructed the Commission to end such wasteful litigation by issuing and revising appropriate regulations. However, despite the new law and despite the issuance of a revised General Order 11, litigating parties are still arguing about such basic things as which group of companies should be used for comparison, what time periods should be studied, what adjustments should be made for risk, etc. The Commission could perform a great service and confer tremendous savings in litigation costs if it could revise and clarify General Order 11 to select one standard group of comparable industries or companies, one standard recognized source (such as FTC-QFR, Value Line, Standard and Poor's, etc.) and a standard time period for comparison

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Mangual, tried strenuously to quantify the effects of the Reagan budget cuts on PRMSA's cargo volume forecasts. Among other things, Mr. Lopez-Mangual tried to use Census data which he apparently did not realize contained inexplicable inaccuracies and then also attempt to employ another study which varied from his own. Other serious errors affected his efforts as both BIE and GVI/PRMA have cogently shown. (See BIE's opening brief, pp. 48-54; GVI/PRMA's reply brief, pp. 58-64.) This shows that if anyone struggles to find specific evidence which simply is not there, one resorts to questionable methodologies and fails to persuade whether one testifies for PRMSA or for GVI/PRMA. I have accordingly found that I cannot rely on PRMSA's speculative evidence concerning the Reagan budget cuts no matter how gloomy the people of Puerto Rico find them to be any more than I can rely upon GVI/PRMA's speculations about what will be the price of oil as of February 28, 1982, the end of PRMSA's forecast year, or the average price of oil during PRMSA's total forecast year.

(e.g., last 5 years, 4 years, 3 years). Also, the Commission should clarify how its rate-of-return formula derived from General Order 11 is to be applied to data published by independent reporting services which do not follow General Order 11 accounting methods or terminology. Much needless argument has ensued between BIE and PRMSA, both of whom presented impressive evidence, over this point and both of whom believed they were following the present General Order 11. Attention needs to be given, furthermore, to the special status of a tax-exempt carrier like PRMSA when applying the formula and to the problem of distortions in a comparable-earnings study caused by artificial elevation or reduction of a rate of return because of the failure to separate nonoperating income and assets from operating income and assets when using independent reporting services. The Commission should decide whether the distortions introduced as a result of comparing only total invested capital and income without separating nonoperating assets and incomes is a permissible degree of imprecision on the theory espoused by BIE that companies compete in the marketplace on a total-capital basis. This record shows that distortions will most likely be present in a comparable-earnings study performed without such a separation but does not show the degree of the distortion as far as I can tell.

(C) It is imperative to follow the requirements of P.L. 95-475 when the Commission frames its Orders of Investigation, not only by specifying particular issues but by explaining why the Commission needs more evidence on these particular issues and, as seen in this case, why a particular rate case must be the vehicle, rather than general rulemaking, to obtain such evidence and resolve such issues if the problems relate more generally to defects in Commission regulations like General Order 11. Otherwise, by merely identifying issues and reciting general allegations made by protestants in their protests, as was done in the present Orders, the Commission is

not really narrowing the issues but is rather perpetuating the old practice of inviting litigants to make all manner of argument and develop all types of evidence under broad rubrics such as the issue as to "what is an appropriate rate of return" or whether cargo volume revenue and cargo volume projections are "sufficiently accurate." In this proceeding, because no one could be sure what was troubling the Commission after its staff had analyzed the carriers' cases for 60 days or more and had studied the protests, the parties covered themselves with innumerable lines of evidence and arguments. All this was undoubtedly very expensive as well as exhausting in view of the very tight 60-day hearing schedule. But this type of litigation, which had plagued previous Commission rate cases, was supposed to have ended with the enactment of P.L. 95-475. Clearly it has not ended. It is, moreover, particularly important to determine whether an adversary-type, ad hoc proceeding like the present massive investigation is a better procedure to resolve complicated General Order 11 or Rule 67 issues rather than a general rulemaking proceeding or a proceeding not conducted under the strict time restrictions imposed by P.L. 95-475. By choosing the P.L. 95-475 approach to resolve complicated industry-wide issues, the Commission is forcing itself and the litigating parties to fashion solutions to complex accounting and methodological problems which effect all rate cases in a frenzied pressure cooker rather than in a more carefully planned rulemaking or other type of proceeding where the parties and the Commission would have time to breathe.

(D) It is imperative that the Commission formulate a rule concerning the admissibility of evidence or data that post-dates the carrier's pre-docketed evidentiary submissions. In other words, can a party utilize current data or post-docketed evidence and, if so, under what circumstances? BIE argues that it is critical for parties to obtain a "definitive" rule of procedure from the Commission. In this proceeding, BIE apparently chose to dis-

regard all data or evidence relating to time periods occurring after the carrier's original pre-docketed evidentiary submissions even to the extent of disregarding the indisputable fact that respondent Sea-Land has permanently cancelled one of the rate increases set down for investigation, namely that in Sea-Land's Canadian tariff, and even to the extent of urging me to disregard certain testimony given by BIE's own staff witnesses. However, other parties, notably PRMSA, GVI/PRMA, and Sea-Land, utilized later evidence. I employed a rule of reason to allow corrections of obvious errors or consideration of major factual changes which were not reasonably subject to dispute, would make carriers' projections not reasonably attainable even as approximations, and which could be challenged before the record closed. Whatever the rule, however, the Commission cannot let its proceedings be tied up with needless, time-consuming arguments over such evidence and cannot allow one party to proceed under one set of rules such as those BIE advocates and actually employed [41] while others proceed under another set. This problem continues to appear in successive rate cases under P.L. 95-475. If rate cases are to proceed efficiently under the new law, the Commission must provide guidance so as to prevent recurrence of the present situation in which, among other problems, BIE felt that the statute did not require it or its staff witnesses to consider later evidence. Since I have no law

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[41] As I have mentioned earlier, however, even BIE did not follow its own strict position completely. Thus, BIE urged me to consider PRMSA's case on the basis of its Trans-class vessel projections rather than those made under the *ATLANTIC BEAR* situation although PRMSA apparently did not know that the *BEAR* would never become available until some time after it had submitted its original evidentiary case. I do not see how the fact that the *BEAR* became unavailable is any different from the fact that Sea-Land cancelled the rate increases in its Canadian tariff or that the *PONCE* was delayed in redelivery to PRMSA except that the effects of the latter two factual changes had to be evaluated at a later time in the proceeding.

clerk or staff personnel assigned to assist me, this means that I have been deprived of the benefit of the staff's evaluation of such things as the effects of Sea-Land's cancellation of the rate increases in its Canadian tariff or the delayed redelivery of PRMSA's vessel, the *PONCE*, and moreover, so might be the Commission, since both the Commission and its administrative Law Judges are on the decisionmaking side of the Administrative Procedure Act. If the Commission agrees with BIE's position that no evidence should be considered if it covers time periods occurring after the carriers' original evidentiary submissions 60 days or more before the rate changes or before the docketing of the proceeding, then staff evaluation of such evidence was unnecessary. However, if the Commission does not agree with BIE, then the staff in future cases will be obliged to reckon with later factual changes and give testimony where appropriate.

(E) It is imperative that the Commission, once and for all, save individual shippers with particular problems about individual rates from wasting their time and money in the wrong type of cases where they beat their heads against a wall of general-revenue issues with tools which are designed to bring specific commodity rate relief. For over 20 years now I have seen individual shippers march into purely general-revenue cases and leave emptyhanded and the practice goes on, although the Commission tried to advise them in the past that general-revenue cases were ill suited to alleviate their particular individualized problems. It is once again frustrating and deeply disturbing to hear individual shippers and consumers, especially the elderly and retired living on fixed incomes, and realize that they are in the wrong type of case. As a service to these citizens who demonstrated sincere concerns, the Commission ought to encourage individual negotiations between shippers and carriers seeking to adjust rate relationships in the tariffs and work with the carriers, if necessary, to see if any individualized relief can be devised under the doctrines

enunciated in the *Baltimore & Ohio* and *Reduction in Freight Rates on Automobiles* decisions to the extent those doctrines can be applied. This idea is worth pursuing especially if the Reagan budget cuts will adversely affect the food stamp program and presumably the ability to import food into Puerto Rico, as PRMSA contends. In any event, since the record shows that the respondent carriers (with the possible exception of TMT which has not adequately explained certain areas of its cases, as I mentioned above) have shown that their projections are based on reasonable methodologies and are as reliable as can be expected when forecasting more than a year into the future, they have shown justification for their 16-18 percent general rate increases. Moreover, the various calculations performed by the carriers, as adjusted to satisfy BIE's objections or to factor in indisputable facts such as the cancellation of the increases in Sea-Land's Canadian tariff or the delayed redelivery of the *PONCE* to PRMSA, have corroborated the basic finding that these increases will not exceed a reasonable rate of return level. Therefore, as a consideration to the shippers, businesspersons, and consumers who testified in this proceeding, I recommend that the Commission announce that it will encourage individualized attention to particular rate problems and will lend its good offices to any reasonable attempts to adjust any particular individual rate that appears to be causing problems. In any event, however, the Commission owes it to individual persons who are concerned over particular rates to save their time and money by steering them to negotiations or to proceedings in which their individualized rate evidence is relevant, i.e., individual commodity rate negotiations or proceedings, not general-revenue investigations.

This final recommendation which focuses on individual rate problems and rate relationships in the tariffs is not meant to disparage the economic impact testimony proffered by GVI/PRMA. It is rather designed to direct attention to areas where relief might be available and

away from intangible abstract propositions which do not offer easy solutions. I do not necessarily disagree with GVI/PRMA's statement that "the Commission should consider the economic impact as one element of its equation, and set the lowest feasible rate of return in view of the economic impact of rates upon Puerto Rico and the Virgin Islands." (GVI/PRMA's reply brief, p. 118.) The problem arises, however, when one tries to fix the "lowest feasible rate of return" given the imprecise measuring tools available to any rate-of-return expert. The "lowest-feasible-rate-of-return" approach, while it sounds appealing, is not easy to apply. Moreover, it is not necessarily a panacea since it sidesteps real problems. For example, such an approach provides no incentive to a carrier to improve efficiencies. More importantly, perhaps, it does nothing to deal with what appears to be the real problem in these trades, namely, how to offset the effects of creeping inflation by improving productivity given so many old ships in the various fleets and how to attract the necessary money to replace these ships given the tendency of the dominant, government-owned carrier PRMSA to keep a lid on rate levels. It would be strange to discover that this latter carrier which was established by the Government of the Commonwealth of Puerto Rico to ensure continued water transportation services to the people of the Commonwealth, did not already pursue a policy of maintaining rates at the lowest feasible overall levels consistent with the ability of the economy of the Commonwealth to absorb rate increases. As history shows and as certain testimony in this proceeding has indicated, carriers serving the Puerto Rican trade have not been able to maintain rate levels that provide them with reasonable earnings, the trade simply not being lucrative. For example, PRMSA lost $671,000 in its fiscal year ending June 29, 1980, and from June 29, 1980 through January 25, 1981, it lost $1,260,000 before interest, $10,777,000 after interest. To some extent, therefore, whatever the Commis-

sion can do by way of regulation to keep profits down to reasonable levels has already been more than accomplished by the realities of the marketplace.

/s/ Norman D. Kline
NORMAN D. KLINE
Administrative Law Judge

Washington, D.C.
July 17, 1981

APPENDIX D

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

September Term, 1981

No. 81-2088

PUERTO RICO MARITIME SHIPPING AUTHORITY,
Petitioner

v.

FEDERAL MARITIME COMMISSION

and

UNITED STATES OF AMERICA,
Respondents

TRAILER MARINE TRANSPORT CORPORATION, *et al.*,
Intervenors

And consolidated case No. 81-2128

(Filed June 25, 1982)

Before: Wald, Mikva and Ginsburg, Circuit Judges.

ORDER

On consideration of petitioner's petition for rehearing, filed June 11, 1982, it is

ORDERED by the Court that the aforesaid petition is denied.

Per Curiam

FOR THE COURT:

GEORGE A. FISHER
Clerk

By: /s/ Robert A. Bonner
ROBERT A. BONNER
Chief Deputy Clerk

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

September Term, 1981

No. 81-2088

PUERTO RICO MARITIME SHIPPING AUTHORITY,
Petitioner

v.

FEDERAL MARITIME COMMISSION

and

UNITED STATES OF AMERICA,
Respondents

TRAILER MARINE TRANSPORT CORPORATION, *et al.*,
Intervenors

And consolidated case No. 81-2128

(Filed June 25, 1982)

Before: Robinson, Chief Judge, Wright, Tamm, MacKinnon, Wilkey, Wald, Mikva, Edwards, Ginsburg and Bork, Circuit Judges.

ORDER

Petitioner's suggestion for rehearing *en banc* has been circulated to the full Court and no member of the Court has requested the taking of a vote thereon. On consideration of the foregoing, it is

ORDERED by the Court *en banc* that the aforesaid suggestion is denied.

Per Curiam

FOR THE COURT:

GEORGE A. FISHER
Clerk

By: /s/ Robert A. Bonner
ROBERT A. BONNER
Chief Deputy Clerk

APPENDIX E

STATUTES

Shipping Act, 1916, § 18(a), 46 U.S.C. § 817(a):

(a) Every common carrier by water in interstate commerce shall establish, observe, and enforce just and reasonable rates, fares, charges, classifications, and tariffs, and just and reasonable regulations and practices relating thereto and to the issuance, form, and substance of tickets, receipts, and bills of lading, the manner and method of presenting, marking, packing, and delivering property for transportation, the carrying of personal, sample, and excess baggage, the facilities for transportation, and all other matters relating to or connected with the receiving, handling, transporting, storing, or delivering of property.

Every such carrier shall file with the Commission and keep open to public inspection, in the form and manner and within the time prescribed by the Commission, the maximum rates, fares, and charges for or in connection with transportation between points on its own route; and if a through route has been established, the maximum rates, fares, and charges for or in connection with transportation between points on its own route and points on the route of any other carrier by water.

No such carrier shall demand, charge, or collect a greater compensation for such transportation than the rates, fares, and charges filed in compliance with this section, except with the approval of the Commission and after ten days' public notice in the form and manner prescribed by the Commission, stating the increase proposed to be made; but the Commission for good cause shown may waive such notice.

Whenever the Commission finds that any rate, fare, charge, classification, tariff, regulation, or practice, demanded, charged, collected, or observed by such carrier is unjust or unreasonable, it may determine, prescribe, and order enforced a just and reasonable maximum rate, fare, or charge, or a just and reasonable classification, tariff, regulation, or practice.

* * * *

Intercoastal Shipping Act, 1933, as amended, § 2, 46 U.S.C. § 844 (Public Law 95-475), in relevant part:

No change shall be made in the rates, fares, or charges, or classifications, rules, or regulations, which have been filed and posted as required by this section, except by the publication, filing, and posting as aforesaid of a new schedule or schedules which shall become effective not earlier than thirty days after date of posting and filing thereof with the Federal Maritime Commission, and such schedule or schedules shall plainly show the changes proposed to be made in the schedule or schedules then in force and the time when the rates, fares, charges, classifications, rules, or regulations as changed are to become effective: *Provided*, That no general increase in rates or general decrease in rates shall take effect before the close of the sixtieth day after the day on which such general increase in rates or general decrease in rates is posted and filed with the Commission: *Provided further*, That the Commission may, in its discretion and for good cause, allow changes upon less than the period of thirty days or sixty days herein specified: *And provided further*, That schedules or changes which provide for extension of actual service to additional ports at rates of said carrier already in effect for similar service at the nearest port of call to said additional ports shall

become effective immediately upon notice to the Commission.

* * * *

Intercoastal Shipping Act, 1933, as amended, § 3(a), 46 U.S.C. § 845(a) (Public Law 95-475):

(a) Whenever there shall be filed with the Federal Maritime Commission any schedule stating a new individual or joint rate, fare, or charge, or any new individual or joint classification, or any new individual or joint regulation or practice affecting any rate, fare, or charge, the Commission shall have, and it is given, authority, either upon protest or upon its own initiative without protest, and if it so orders without answer or other formal pleading by the interested carrier or carriers, but upon reasonable notice, to enter upon a hearing concerning the lawfulness of such rate, fare, charge, classification, regulation, or practice. The Commission shall not order a hearing pursuant to this subsection, on its own motion or upon protest, unless the Commission publishes in the Federal Register the reasons, in detail, why it considers such a hearing to be necessary and the specific issues to be resolved by such hearing. For purposes of facilitating the administration of this chapter, the Commission shall, within one year after the effective date of this sentence, by regulation prescribe guidelines for the determination of what constitutes a just and reasonable rate of return or profit for common carriers by water in intercoastal commerce. After the regulations referred to in the preceding sentence are initially perscribed, the Commission shall from time to time thereafter review such regulations and make such amendments thereto as may be appropriate.

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Intercoastal Shipping Act, 1933, as amended, § 3(b), 46 U.S.C. § 845(b) (Public Law 95-475):

* * * *

(b) Pending such hearing and the decision thereon the Federal Maritime Commission, upon filing with such schedule and delivering to the carrier or carriers affected thereby a statement in writing of its reasons for such suspension, may, except as provided in subsection (c) of this section, from time to time suspend the operation of such schedule and defer the use of such rate, fare, charge, classification, regulation, or practice, but not for a longer period than one hundred and eighty days beyond the time when it would otherwise go into effect; and after full hearing whether completed before or after the rate, fare, charge, classification, regulation, or practice goes into effect, the Commission may make such order with reference thereto as would be proper in a proceeding initiated after it had become effective. If the proceeding has not been concluded and an order made within the period of suspension, the proposed change of rate, fare, charge, classification, regulation, or practice shall go into effect at the end of such period. At any hearing under this paragraph the burden of proof to show that the rate, fare, charge, classification, regulation, or practice is just and reasonable shall be upon the carrier or carriers. The Commission shall give preference to the hearing and decision of such questions. Notwithstanding any other provision of law, the Commission shall complete such hearing under this section within sixty days; the initial decision resulting therefrom, if any, shall be submitted in writing to the Commission within one hundred and twenty days; and the Commission shall issue a final decision thereon within one hundred and eighty days. The sixty-day, one hundred and twenty-day, and one

hundred and eighty-day periods referred to in the preceding sentence shall each begin on the day on which such rate, fare, charge, classification, regulation, or practice first takes effect or, in the case of suspended matter, shall begin on the day on which such matter would have otherwise gone into effect. However, the Commission may, in its discretion and for good cause, extend the time period or suspension period for a period of not more than sixty days, if three or more Commissioners agree to such an extension. If such extension is granted, the Commission shall report in writing to Congress within ten days from the granting of such extension together with—

(A) a full explanation of the reasons for the extension,

(B) the issues involved in the matter before the Commission,

(C) the names of the personnel of the Commission working on such matter, and

(D) a record of how each Commissioner voted on the extension.

If a final decision is not issued by the Commission within the one hundred and eighty day period, or by the end of any extension period, such rate, fare, charge, classification, regulation, or practice shall, for purposes of this section, thereafter be deemed to be just and reasonable. However, if the Commission finds that it is unable to issue a final decision within such period or within such extension due to delays which are directly attributable to the proponent of such rate, charge, classification, regulation, or practice, the Commission may disapprove such rate, fare, charge, classification, regulation, or practice, upon the expiration of such period or extension. This provision shall not preclude any remedies available pursuant to section 821 of this title. Notwithstand-

ing any other provision of law, in providing a hearing for the purposes of this chapter, it shall be adequate to provide an opportunity for the submission of all evidence in written form, followed by an opportunity for briefs, written statements, or conferences of the parties. Any such conference may be chaired by an individual Commissioner, an administrative law judge, or any designated employee of the Commission.

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Intercoastal Shipping Act, 1933, as amended, § 3(c)(2), 46 U.S.C. § 845(c)(2) (Public Law 95-475), in relevant part:

If the Commission finds, as a result of any proceeding under this section with respect to a general increase in rates, that any unsuspended portion of the increase is not just and reasonable, the Commission shall order the carrier involved to refund to any person who was charged on the basis of such general increase an amount equal to that portion thereof found to be not just and reasonable plus interest on such amount computed on the basis of the average of the prime rate charged by major banks, as published by the Board of Governors of the Federal Reserve System, during the period to which the refund applies.

FEDERAL MARITIME COMMISSION REGULATIONS

46 C.F.R. § 502.67(a)(2), (3) & (4):

(2) No general rate increase or decrease shall take effect before the close of the sixtieth day after the day it is posted and filed with the Commission. A vessel operating common carrier (VOCC) shall file, under oath, concurrently with any general rate

increase or decrease testimony and exhibits of such composition, scope and format that they will serve as the VOCC's entire direct case in the event the matter is set for formal investigation, together with all underlying workpapers used in the preparation of the testimony and exhibits. The VOCC shall also certify that copies of testimony, exhibits and underlying workpapers have been filed simultaneously with the Attorney General of every non-contiguous State, Commonwealth, possession or Territory having ports in the relevant trade that are served by the VOCC. The contents of underlying workpapers served on attorneys general pursuant to this paragraph are to be considered confidential and are not to be disclosed to members of the public except to the extent specifically authorized by an order of the Commission or a presiding officer. A copy of the testimony and exhibits shall be made available at every port in the trade at the offices of the VOCC or its agent during usual business hours for inspection and copying by any person.

(3) Workpapers underlying financial and operating data filed in connection with proposed rate changes shall be made available promptly by the carrier to all persons requesting them for inspection and copying upon the submission of the following certification, under oath, to the carrier:

CERTIFICATION

I, (Name and title if applicable)————, of (Full name of company or entity), having been duly sworn, certify that the underlying workpapers requested from (Name of carrier), will be used solely in connection with protests related to and proceedings resulting from (Name of carrier)————'s rate (increase) (decrease) scheduled to become effective (Date) ——— and that their contents will

not be disclosed to any person who has not signed, under oath, a certification in the form prescribed, which has been filed with the Carrier, unless public disclosure is specifically authorized by an order of the Commission or the presiding officer.

Signature: ————————.

Date: ————————

Signed and Sworn before me this ——— Day of ———.

Notary Public: ———.

My Commission expires: ———.

(4) Failure by the VOCC to meet the service and filing requirements of paragraph (a) (2) may result in rejection of the tariff matter. Such rejection will take place within three work days after the defect is discovered.

* * * *

46 C.F.R. § 512.1:

(a) The purpose of this part is to establish methodologies that the Federal Maritime Commission will utilize in evaluating the reasonableness of rates in the domestic offshore trades filed by vessel operating common carriers (VOCCs) subject to the provisions of the Intercoastal Shipping Act, 1933, and to provide for the orderly acquisition of data essential to this evaluation. Compliance is mandatory and failure to file the reports required under this part may result in denial of rate increases or rejection of tariff pages implementing rate changes or penalties of up to $100 for each day of such default (46 U.S.C. 820(a)).

(b) The methodology employed in each case will depend on the nature of the relevant carrier's operations and financial structure. In evaluating the rea-

sonableness of a VOCC's overall level of rates, the Commission will use return on rate base as its primary standard. However, the Commission may also employ other financial methodologies in order to achieve a fair and reasonable result.

(c) In evaluating the reasonableness of a carrier's rates, the Commission may consider, in addition to the rate of return of the filing carrier, the effect which approval or disapproval of the rates will have on other carriers in the Trade.

(d) The Commission reserves to itself the right to employ other bases for allocation and calculation and to consider other operational factors in any instance where it is deemed necessary to achieve a fair and reasonable result.

46 C.F.R. § 512.2(f):

(f) Whenever a carrier files with the Commission an increase or decrease in rates which would affect not less than 50 percent of its tariff items in a particular Trade, or which would result in an increase or decrease of not less than 3 percent in the carrier's gross revenues in that particular Trade, it shall simultaneously file in duplicate:

(1) Financial and operating data in support of proposed rate changes as follows:

(i) An *actual* midyear rate base exhibit (Exhibit A-a) and supporting schedules computed for a 12-month period commencing not more than fourteen (14) months prior to the date of filing the proposed rates;

(ii) A *projected* midyear rate base exhibit (Exhibit A-p) and supporting schedules computed for a 12-month period commencing on the first day of the month following the date on which the rate changes are proposed to become effective;

(iii) An *actual* income account exhibit (Exhibit B-a) and supporting schedules covering the 12-month period used to calculate rate base in paragraph (f) (1) (i) of this section;

(iv) A *projected* income account exhibit (Exhibit B-p) and supporting schedules for the 12-month period commencing on the first day of the month following the date on which the changed rates are proposed to become effective (taking into account the effect of the proposed rate changes); and

(v) *Actual* and *projected* rate-of-return exhibits (Exhibits C-a and C-p) coinciding with the time periods covered by the income statements furnished in response to paragraphs (f) (1) (iii) and (iv) of this section; and

(2) The work papers described in § 512.4.

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APPENDIX F

MATERIALS IN THE RECORD CITED BY THE COURT OF APPEALS: J.A. 704-712

J.A. 704: New York Times, February 26, 1981

OPEC MEETING SOON NOW SEEMS UNLIKELY

By DOUGLAS MARTIN

Last week's meeting of representatives from six members of the Organization of Petroleum Exporting Countries will not lead to a special meeting of the organization before the regular meeting scheduled May 25, the Indonesian oil minister, Subroto, said yesterday at a news conference in Jakarta.

Hamid Zaheri, the OPEC spokesman, confirmed in a telephone interview from the group's headquarters in Vienna that no earlier meeting was planned, although he noted that an extraordinary meeting "can be held any time" and is "always a possibility."

After last week's talks in Geneva, oil industry sources had suggested that OPEC would move up the date of the May 25 meeting to address the problems of growing crude oil surpluses caused by the resumption of almost two million barrels of daily production from Iran and Iraq and by slack demand in consuming countries.

Concern has been growing among OPEC members that some producing countries will have to cut output soon to prevent a price-depressing glut of crude oil on world markets.

In particular, a number of analysts expect Saudi Arabia to slash its production by about 2 million barrels daily, to about 8.3 million to 8.5 million, while some of the other 12 OPEC producers reduce output by a total of about 500,000 barrels daily.

After the meeting, Saudi Arabia's oil minister, Sheik Ahmed Zaki Yamani, told newsmen that no decisions had been made on production or prices.

But industry analysis consider a Saudi move imminent because of the sagging oil market. Under Saudi Arabia's practice of reviewing production levels monthly, a cut in output could come as early as March 1.

A full OPEC meeting would not be necessary before Saudi Arabia or any other member decided to reduce production.

Additionally, a meeting would not be needed for Saudi Arabia to raise its basic crude price by $2 a barrel, to $34, another action that oil traders and others believe was discussed in Geneva. A $34 price would still be $2 below the basic OPEC price, but could be a step toward unifying the organization's divided price structure.

In a report from Teheran yesterday, Reuters quoted the Iranian oil ministry as saying that Iran had urged participants at the Geneva meeting to link natural gas prices to those of crude oil.

Lawrence Goldstein, an analyst with the Petroleum Industry Research Foundation Inc., suggested that Saudi Arabia might reduce output gradually, rather than through a sudden cut of two million barrels a day. Among other things, he noted, cutting back that far would leave only a small cushion if the Iran-Iraq war heated up and supplies from those countries were halted again.

Moreover, the Saudis are trying to persuade other OPEC nations to go along with a long-term pricing plan to bring some predictability to increases in world oil prices.

"What if they played their entire card and had nothing to show for it?" Mr. Goldstein asked, suggesting that the Saudis might make smaller cuts slowly, as a tactic for winning support for the long-term plan.

J.A. 705-07: Petroleum Economist, October 1980

OIL IN THE EIGHTIES

by M. A. ADELMAN *

The OPEC special committee on long term price policy has clearly stated its members' goal: to raise prices, but not too fast for the OECD customers to absorb, toward the neighbourhood of the cost of synthetic fuels. Increases past that level would obviously lose so much sales volume that revenues would be lower. This is a rational programme for a group monopoly, and renders superfluous the political or other over-subtle theories of price policy. The real problems are: how to locate the optimal price, how fast to approach the ceiling, and how to reconcile differences among members (a task made easier by the collapse of Iran).

The OPEC nations (the Organization as such has never been important) have been on this track for ten years, since the 1970-71 Tehran-Tripoli "agreements". The price-raising mode was to increase taxes per barrel. Almost inadvertently, they found another mode in late-1973. The embargo against the United States and the Netherlands was a sham, but the production restraint unleashed a three-stage process: (1) a shortage which (2) raised spot prices, which (3) the nations used as a guide to raise list or contract prices. Then as now, the "market forces" were deliberate production cutbacks.

At the start of 1974, the cartel resumed the first mode, raising not taxes but a "marker" list price (Saudi Light). Everyone else aligned on the standard, setting differentials for quality and location. Then they produced whatever was demanded at that price. This worked well in

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1974, and the price was raised from a little over $7 on 1st January to about $10.50 by year's end. Saudi Arabia was the price leader, as the public record shows, the Iranian "hawks" being glad to follow. The Saudis promised an auction to bring prices down, and then cancelled; they promised they would not let output be reduced, and then they did. Soft words and hard actions have served them well.

After 1974, the price raising mode did not work smoothly. First, there was the world price inflation. Looking back six months or a year after an oil price increase, the gains realised were much less than expected, often zero. In 1977-78, the declining dollar made the disappointment worse. And it was difficult to raise and hold prices in the face of excess capacity and stagnant demand. Everybody wanted everybody else to carry the burden of output restriction. Had there been any truth in the official legend that the Saudis really did not want so much money, they could easily have let everybody else produce to the limit, while they merely made up the difference.

Another damper on price increases was the fear of aggravating the world recession, provoked in part by the huge current-account surpluses of 1974. But these diminished to near-zero in four brief years, to everybody's surprise.

Thus 1975-78 were tolerable years for consumers, but our comfort was their discontent. It could not last because there was— and is—unexerted price raising power. Stagnant demand and revenues led directly to the price increases. These were market forces, but not competitive market forces. In 1977-78 there was some discussion of direct production control. The Saudis took the first step by fixing at 65-35 the proportions of light and heavy crude. (The same result could have been reached by setting price differentials, which was just what they wished to avoid).

At this juncture came the unforeseen Iranian Revolution, which reduced supply by about 4-5% in the winter of 1978-79. The deficit could easily have been made up by higher production elsewhere. But the first priority was to clean out inventoreis and raise prices. In November 1978, Kuwait and Abu Dhabi said they would not raise output, and Kuwait advised consumers to use up stockpiles—ever a sensitive point.

In January, Iran went completely down. In December and up to 20th January, Saudi Arabia produced at 10.5 million barrels daily (MBD). The wells could have done more. Above-ground facilities were the bottleneck, but could have been enlarged within the year. An announcement that the Saudis were increasing capacity, and would use it to the full, would have quieted the market, had there been any such intention. Instead, on 20th January, Saudi Arabia cut production from 10.5 to 8.0 MBD. In February-March they kept it at 9.5 MBD, then cut it back to 8.5 for three months, then back up to 9.5 in July. The Persian Gulf nations agreed publicly to restrain output, and the Saudis upbraided the Iraqis for producing too much and covering it up—typical intra-cartel haggling.

Spot prices had risen in late-1978. The January Saudi cutback, the further cuts after February, and continued restriction by others, made them really soar. The panic was on.

The spot market, on which so many irrelevant curses have been lavished, merely registered the panic. The "unbridled competition among buyers" is rhetoric. The market fact was the reversion to the 1973 mode: holding output below demand to raise spot prices to raise list prices. Nobody can fine tune with such a coarse instrument. The Persian Gulf nations cannot precisely forecast the amount demanded. A small deficit can put prices up strongly, just as a small surplus can put prices down. The producing nations are willing to risk a shortage, but

not a glut. Everybody knows the unbalance of choice, and is quick to buy on a shortage, slow to sell on a glut. Therefore a shortage is always likely, and expectation of it creates a surge of demand, increasing the pressure on price. The fear of dearth, of wheels stopping, freezing the dark, thousands thrown out of work, make buyers stampede to seize and hoard all they can. Equally important, it terrifies public and official opinion, and paralyses the will to do anything that might displease the exporting nations.

As compared with the Seventies, there is greater supply insecurity. Trying to keep supply at or a little under demand has properly been called brinkmanship. It has been piled on top of—and is more likely than—another use of the "oil weapon", or the general instability of societies colliding with the Twentieth Century. They are unruly to each other. Internally, their political systems permit the Outs to displace the Ins only through violence and conspiracy. Perhaps brinkmanship will become such a nuisance to the exporting nations that they will resume the first mode, direct price-raising and no output restraint.

The time-honoured defence against uncertain supply (since Joseph forecast the lean years) is an inventory. Private companies need to hold larger stocks of oil, (and of services, *ie* more flexible refineries) of the kind recommended in these columns in 1968. (*Petroleum Press Service* January 1968, page 2). But the European and Japanese stockpiles are mostly pipeline fill and tank bottoms. For nearly two years, President Carter has suspended execution of a 1975 law providing a Strategic Petroleum Reserve, because the King of Saudi Arabia disapproves. It is a very "special relationship". Congress has now required a derisory programme of 36 million barrels per year; it would take 20 years to fulfill the target.

The Venice meeting wants a super-summit with the producers "to decide what level of oil prices the world can afford to pay"—a good brief definition of a monopoly price. Patience—they probably will see it before the decade is out. Perhaps, as more supply fluctuations rack the market, consuming governments will have the sense and courage to build strategic stockpiles, and become sellers of last resort. Then, when shortages threaten, they would sell crude oil freely, at the highest price being paid anywhere, plus storage cost. Since the market price anticipates near-term increases, few would be tempted to buy for speculation. With no panic, there would be no frenzied price rise.

Emergencies aside, energy demand will stagnate. The slow decline in energy use per unit of gross national product during 1973-78 was only the start of the reaction to the first price rise, and it would have continued for years. The decline has accelerated because the 1979-80 product price increases were larger than the earlier wave. The consumption response to price is like a glacial drift, imperceptible in the short run and irresistible in the long run. The higher the price of energy, the more it pays to invest on making it go further. Of course this investment is not available elsewhere, which slows economic growth. But subtraction is not stoppage. The solemn resolve in Venice to de-couple economic growth from energy supply growth is beside the point. There is no couple. Cheap energy is only one minor factor in promoting growth. The highest growth rates, since World War II, have been by East Asian nations who paid high prices for energy. The real limit to growth continues to be the occasional shock to the world monetary-financial system, the spur to inflation, repressive fiscal and monetary measures, and protectionism, which will operate in the Eighties as in the Seventies.

Oil consumption in the OECD countries barely grew after 1973, and now in 1980 it is below 1973. It has

peaked, for how long we cannot say, but possibly for all time. The less developed countries will shortly follow suit, having run through their temporary borrowing respite. Consumption is limiting production, not the other way around.

With stagnant consumption and non-OPEC capacity growing, OPEC exports have been falling since 1973, and will keep falling. But prices will rise, despite excess supply, as in the past. It pays the dominant Persian Gulf countries to let potential capacity lie fallow, and hold production short of installed capacity. Their control of supply has been strengthened by the collapse of Iran. Their long-term price strategy cited earlier is no empty boast, because they have not yet exerted their full price raising power.

In one respect the Eighties are different. For the first time, it is worth asking how much more the traffic will bear. Synthetic fuels are of no importance before 1990, if then, but consumer reaction may well set a lower ceiling. Because the consumption response to higher prices is so slow, the producing nations are almost certain to overshoot, and raise the price higher than they would desire to set it if they had prompt information. The better they understand the demand for oil, the better for them, and in this instance their interest is the same as their customers.'

As in the Seventies, but now much more clumsily because of direct production control, the OPEC nations will adapt production to demand, on their terms. The official truth is that these nations will, for conservation's sake, produce freely up to some limit. If we keep our consumption within that limit, happiness; if not, disaster. This idea runs counter to logic and experience. If the demand for their exports is 35 million barrels daily they will try to produce 34.9 MBD, or less if they aim to raise the price; if demand is 25 MBD, the goal is 24.9, or less if they aim to raise the price. The notion that they are

producing more barrels than suits their economic interests, out of a sense of duty, or something, is an unlikely story, which needs stronger evidence than endless repetition. The idea that a country with 50 to 100 years' supply of oil, mostly in already proved reserves, prefers to keep oil in the ground at zero present value rather than to turn it into assets with positive value, is implausible to say the least. There is a simple, strong reason to keep oil in the ground: to produce more would wreck prices, now.

To be sure, if OPEC exports are driven low enough, the cohesion of the Persian Gulf core will be threatened. But Iran has eliminated itself, and the wealthier those nations become, the better they can resist pressure to compete and produce more. The principal consuming nations will not consider using their buying power or taxation power to influence the price of oil (see *Petroleum Economist*, September 1977, page 359). The world should reckon on real prices rising toward the ceiling where profits are maximized, as partly perceived by Sheikh Yamani and his colleagues. Most likely prices will overshoot the cartel's own optimum because the market reaction is inherently slow and uncertain.

The following two excerpts from the October 1980 Petroleum Economist also appeared on page 707 of the Joint Appendix, although they do not appear to be relevant:

John Dingell, who is expected to become chairman of the House Commerce Committee in the next Congress and whose enthusiasms will thus carry still more weight, has urged the establishment of a separate corporation to ensure fulfillment of the SPR plan.

For the present, the programme has to be financed out of general tax revenues. It is thus subject to the inevitable sniping and delays. The latest attack has come from the DOE itself, in the shape of a report prepared at the request of Senator Bill Bradley (Democrat, New Jersey) by the international energy analysis division. The report reaches no policy conclusions. But it argues that significant price and economic disturbances would be set off by fulfilment of the 1 billion-barrel target, especially if the completion date was to be moved forward to 1985 from the more plausible deadline of 1989. It also spells out the threatening implications of 'retaliation'—assuming that, in a generally tight world market, OPEC will cut its production by 1 million barrels daily whenever purchases are being made for the SPR.

Even without these doomsday assumptions, the DOE report suggests that, especially in the early and late years of fill, the world market will suffer significantly upward pressure as a result of the SPR acquisitions. The costs as well as the benefits of such a massive storage programme will clearly not be confined to North America. Until they have been more fully evaluated, the most that can be said with certainty is that the SPR programme is once more going forward—but that it still has more than nine-tenths of its course ahead of it.

OIL FUTURES TRADING MARKET FOR LONDON?

A new venture to promote the trading of oil futures in London has set March 1981 as the startup date for transactions in light heating oil. The effort is backed by International Petroleum Exchange, which was set up specifically to determine whether oil futures traded by "open outcry" would be a viable proposition. A meeting has been scheduled for 15th October to make IPE a legally constituted entity; thereafter, 35 seats will be allocated for elected members who will trade from the floor of an exchange that will be set up in the City of London.

Preparations for establishment of the exchange have been carried out by a Formation Committee, which has included representatives from the oil industry and from commodities and securities brokerage firms. Oil companies providing committee members included Tenneco, Mabanaft, Dow Chemical, ISAB (Italy), British Petroleum, Carless and Premier Consolidated Oilfields Amoco, Texaco and Shell held observer status on the committee.

IPE will trade initially in German-grade light heating fuel, (also known as No. 2 fuel and gas oil). The sponsors insist that the operation will supplement, not compete with, the existing well-developed oil trading markets, whose primary means of communication are the telephone and telex. The contract size will be 100 tonnes, compared to 4,000-8,000 tonnes normally traded in the Rotterdam barge market and the norm of 30,000 tonnes in cargoes. The purpose of the small unit size is to attract speculation from members of the public who normally would not be in a position to "play" the international spot market.

This will not be the first time that futures trading in oil has been tried. The potential was greatly enhanced with the sharp price fluctuations that accompanied the oil crisis of 1973/74, and shortly thereafter future schemes were launched in New York and in Amsterdam. Both

were short-lived because of a lack of interest partly attributable to a dampening of price fluctuations in 1975-78 but more importantly to a very low level of participation by the industry, which always has been very guarded in its attitudes towards oil futures trading.

More recently, futures trading in contracts for No. 2 heating oil and No. 6 fuel (heavy, or residual fuel) started on the New York Mercantile Exchange in November 1978. After a slow start, the NYME now claims that the market, particularly for light heating fuel, increasingly is looking like being a success. Open interest (the number of buy or sell contracts outstanding) for December 1980 totalled 1,126, the first time any one month exceeded the 1,000 mark, the NYME said. On one day recently, trading volume reached 1,073 contracts, a new daily record.

Opportunities for arbitrage between the London and New York markets could arise, but as contract specifications are somewhat different, such operations would be minimal. Whereas the London contract is for 100 metric tonnes, the New York contract is in lots of 1,000 barrels, which is roughly equivalent to 138 tonnes. A further variance is in sulphur content: in New York the maximum is 0.2% (by weight), whereas the London contract will be 0.3%.

J.A. 708: New York Times, January 15, 1981

OIL-EXPORT RISE BY IRAN IS REPORTED

Near-Prewar Levels Indicated; Prices Increased

By ROBERT D. HERSHEY Jr.
Special to The New York Times

WASHINGTON, Jan. 14 — Iran appears to have restored its exports of crude oil to levels equaling, or perhaps even exceeding, those that prevailed before the start of its war with Iraq, United States Government and industry sources said today.

Much of this oil is coming through the country's principal oil-loading port of Kharg Island, which had been reported to have suffered war damage in varying degrees.

The huge refinery at Abadan, about 135 miles northwest of Kharg Island at the head of the Persian Gulf, has been hit and largely shut down but its main function was to produce petroleum products for domestic use.

A private-sector approach to financing oil purchases for the one-billion-barrel strategic petroleum reserve is being studied by Reagan administration strategists. Page D17.

Up From 800,000 Barrels

Iranian exports are estimated to be running as high as a million barrels a day, up from the 800,000 barrels or so shipped abroad before the fighting broke out in September.

Further evidence of Iran's revival as a major world supplier, though still at a far lower level than the amounts exported before its revolution, came with the announcement today from Pars, Iran's press agency, that the price

for its basic crude oil was being raised by about $2, to $37 barrel.

Although an increase was not unexpected in the light of the decision at the meeting of the Organization of Petroleum Exporting Countries in Indonesia last month to raise prices by roughly 9 percent, Iran's increase was only about half those instituted elsewhere in the Middle East and left its prices below those of a number of cartel members.

Financial Pressure Relieved

The increased prices, combined with the reported signing of major new long-term contracts with both East bloc and other countries, was regarded as relieving some of the severe financial pressure Iran is experiencing.

Some sources speculated this might affect the negotiations over the American hostages but another insisted he did not see "how there could be any possible connection." One of Iran's demands has been the return of billions of dollars of assets frozen by the United States.

The higher prices and increased exports do not directly affect the United States since it halted imports of Iranian oil in November 1979, but greater supplies for other countries could have a substantial indirect effect in what is a world market for crude.

It was believed that the bulk of Iran's exports are coming from current production from its major oilfields and not from sharply depleted inventories.

Although the levels of exports are not yet clear, there is overwhelming evidence that fairly large amounts are now flowing.

The trading department of one major international oil company put exports from Kharg Island at an average of 290,000 barrels a day since Nov. 22 with the "possibility" that an additional 200,000 barrels a day are moving from

Lavan Island, in the southern part of the Gulf, well removed from the fighting. Its calculations were made by tracking tankers in the area, a spokesman said.

Another source put the export level at just about the prewar 800,000 barrels a day, while The Financial Times of London said in a dispatch that the figure was "over" one million barrels a day.

Rumania and India Among Buyers

Among the main customers were some Eastern European countries, particularly Rumania, and also India. It was also reported that Iran had concluded some sizable new contracts to supply overseas customers and had renewed some other contracts.

Among them is one for 40,000 barrels a day for the Soviet Union, 150,000 barrels a day for Spain and 100,000 barrels a day for India. India was among the countries most dependent on oil from Iraq, which since the Iranian revolution has been a much larger exporter than Iran.

When the Iraq-Iran war broke out, Iraq's exports of some 3.5 million barrels a day were cut off, but a substantial part of that, which had been pumped through overland pipelines to the Mediterranean, has been restored. Exports by sea from Iraq remain cut off.

Iran's exports had slumped since September to 100,000 barrels a day or less, largely by way of Lavan Island. "Now we're seeing more and more indications of output" from the other main fields, one source commented.

In 1977, before the revolution, Iran produced 5.66 million barrels a day, nearly 90 percent of which was exported. Its production capacity is now estimated by the Department of Energy here at 3 million barrels a day. Iran had set an export target of 900,000 barrels a day for the first quarter of this year, a rate already reached if the most optimistic current reports prove correct.

J.A. 709: Petroleum Economist, January 1981

OPEC AGAIN INCREASES CRUDE OIL PRICES

Meeting in Bali in mid-December for their much-publicised 59th conference, delegates of all 13 OPEC countries failed to unify the crude oil price structure—which has been in disarray for almost two years. But the predictable outcome of their discussions was a further price rise, of the order of $2 to $4 a barrel, on top of the many increases of the past two years. The upshot is that the average level of crude oil prices is now something like 170% above the end-1978 level. (For details see our regular table on page 41).

At the June conference in Algiers the delegates had agreed to align their prices on a fictitious "marker" of $32/barrel, with an absolute maximum of $37 and no further increases before end-December. And at Vienna in September Saudia Arabia announced that it would raise the price of 34° Arab Light from $28 to $30, provided that other official prices remained unchanged. However, the loss of supplies resulting from Iraq's invasion of Iran pushed up the spot market and led many of the exporting countries to add premiums to their official prices.

At Bali, Saudi Arabia adopted the familiar tactic of announcing a $2 increase (from $30 to $32, back-dated to 1st November) in the official price of Arab Light, bringing this to the fictitious level agreed six months before. But the others were not prepared to stand still. The compromise outcome was to allow individual governments to align their official prices on the "marker" of their choice, anywhere between $32 and $36 a barrel, with an absolute maximum price of $41. But since they are still free to add premiums to their official prices, the real meaning of Bali is that they will charge what they think the market will bear. And that will depend in part on the behaviour of the buyers themselves. At the IEA meeting on 9th

December the principal importing countries reached a loose agreement to reduce their first-quarter 1981 import requirements by a total of 2.2 million b/d, but they made no attempt to fix import targets for individual countries. This decision implies a commitment to draw down stocks by about double the normal seasonal amount, and to refrain from resort to the spot market as far as possible. This is much easier said than done.

On the supply side the past month has seen an improvement. Iraq resumed its pipeline exports to the Mediterranean—about 650,000 b/d via the Dorryol line through Turkey and 350,000 b/d through Syria to Banias. And Iran managed to ship about 300,000-400,000 b/d from its Gulf terminals.

The following excerpt from the January 1981 Petroleum Economist also appeared on page 709 of the Joint Appendix, although it does not appear to be relevant:

Malaysia announced more than one production cut during the year, and output in the Philippines slumped badly in the first half and again in July. Reserves there were sharply downgraded. Available figures for Brunei indicate some decline. India was hit by the political disturbances in Assam which cost it some 3 million tonnes in lost production (1.9 million tonnes in the first half alone); and Australia's annual total was down due to union strike action in May and June. Burma alone in this region could claim an increase in production for 1980; but among the minor producers it is interesting to note that New Zealand—producing only gas condensates at present—announced a significant crude discovery towards the end of the year.

Western hemisphere

In the western hemisphere Canada's reserves position has been improved by the spate of discoveries in West Pembina, though to a more modest extent than first estimated. And as "frontier" production from the Arctic and East Coast offshore will not materialise for some years yet, the immediate future is by no means bright. There was little change on balance in 1980, and this year there may be a downturn on Alberta's proposal to cut the province's output—initially by 60,000 b/d in March and ultimately by 180,000 b/d. Canada's total production last year was some 1.8 million b/d or 82 million tonnes, including gas liquids. On a similar basis, production in the USA rose by at least 1.3% to some 485 million tonnes, reflecting price increases and record drilling levels. Following the trend established in 1978-79, when crude production from the "Lower 48" states was falling by over 3% a year, 1980 saw a recovery to a decline of only 1% or so by the fourth quarter—and this small reduction was more

than offset by gains on Alaska's North Slope and some increases for natural gas liquids.

With Venezuela reporting lower figures throughout the year—down by over 10% for some months—Mexico was Latin America's star performer as production continued a rapid build-up toward its interim ceiling of 2.7 million b/d. By October the rate averaged 2.4 million b/d, and the year's total was 36% up at an estimated 110 million tonnes of crude and NGL. Neighbouring Guatemala, though firm figures are lacking, appears to be developing into a significant producer. Activity is also increasing off the Atlantic coast of South America, with Argentina now close to self-sufficiency, offshore production up in Brazil despite a recent setback, and Chile exploiting new discoveries in the far south. Major producers to the west of the Andes are Ecuador and Peru, both running at some 10 million t/yr.

Moderate gains in Europe

West Europe's regional total included a moderate increase for the UK, where new field developments in the North Sea came too late to raise the annual figure beyond the minimum government forecast of 80 million tonnes for 1980 (see *Petroleum Economist* August 1980, page 353). But throughout the year Norway had the benefit of output from Statfjord, which had come onstream in November 1979. Denmark is about to start production from its Gorm field, which will eventually quintuple the country's modest output. Away from the North Sea, there were some useful gains by France in Acquitaine, by Italy in the Po Valley and the Adriatic, and by Spain in the Mediterranean.

Markedly slower growth was recorded in the USSR last year, with crude and condensate production reaching only about 603 million tonnes against the target of 606 million. The forecast for 1981 is 610 million tonnes, a rise of only 1% or so following nearly 3% this year and 2.5%

in 1979; earlier, the growth rate for most of the 1970s was well over 5% annually. (Prospects for the next five years are reviewed in an article on page 9). East Europe's second major producer, Romania, fell far short of its target in 1979 and there is no evidence of a recovery last year. But Albania has claimed a rapid rise in production following recent discoveries, though reliable figures are not available. On balance, it may be noted that the USSR and East Europe together accounted for over a fifth of global production last year.

J.A. 710: New York Times, February 6, 1981

DROP IN USE OF OIL RAISES EXPECTATION OF GLUT BY SUMMER

Slowing of the World Economy May Help to Soften OPEC's Prices as Supplies Stay Ample

By YOUSSEF M. IBRAHIM
Special to the New York Times

LONDON, Feb. 6—A new glut in world oil supplies may be developing, officials of Western governments and international oil companies say, and by summer more oil may be available to consumers than they require. Moreover, the growing supplies are putting pressure on some OPEC producers to cut back the surcharges they have added to their official oil prices.

"The thing that happened last year was that demand for oil was dropping much faster than anybody anticipated," a senior official of a West European government said in an interview. "It flabbergasted virtually every Western government and all the major oil companies."

The drop in demand has almost nullified the impact of the five-month-old war between Iraq and Iran, which has reduced production by as much as 3.5 million barrels a day.

Price Rises Linked to Decontrol

[In New York, oil analysts said yesterday that the recent price run-ups for heating oil and gasoline of nearly 10 cents a gallon in the United States despite the improved world supply situation was principally the result of President Reagan's recent decontrol of domestic oil prices and OPEC's last price increase.

[Lawrence Goldstein of the Petroleum Industry Research Foundation calculated that crude oil costs in the United States will have risen by between $3 and $7 a

barrel, or as much as 20 cents a gallon, between late December and early spring.]

According to Ulf Lantzke, executive director of the International Energy Agency in Paris, the level of oil consumption in the 21 industrialized member nations of the group dropped in 1980 by 7.5 percent from the previous year, to 35.5 million barrels a day.

Trend Expected to Continue

The trend shows every sign of continuing, he said. An additional drop of 1 percent to 2 percent is expected this year, because of the gloomy economic prospects for the consuming countries; with industrial production down, industry's energy requirements shrink.

The turnabout from alarm among consuming nations just three months ago over the prospect of serious oil shortages to a new and confident mood also results from the gradual resumption of oil exports from Iran and Iraq. They are now exporting 1.6 million barrels a day.

As a result of the ample supplies, the price of oil on the spot market, where oil free of contractual obligations is sold to the highest bidder, has sunk to about $37 a barrel, about the same as that sold under contract by the Organization of Petroleum Exporting Countries.

The spot market usually signals to OPEC producers which way prices are going. If demand is strong, spot prices rise above official levels; then OPEC generally raises official prices at its periodic price-fixing sessions. The next such meeting is scheduled for May 25 in Geneva.

But with the present drop in demand for oil, several oil companies whose contracts with OPEC producers are up for renegotiation are now balking at paying additional premiums over the official prices, according to oil executives.

In a response that some viewed as a signal of retreat, Kuwait's oil minister, Ali Khalife al-Sabah, said last Monday that his country, which charges a premium of $3.50 a barrel on top of its official price of $35.50 a barrel, had no "ideological" commitment to the present premium level.

Sources at both the International Energy Agency and OPEC say that world oil supplies and demand now appear to be balanced at 48.6 million barrels a day. Four months ago, demand exceeded supply by two to three million barrels a day.

Industry executives and economists attribute the large drop in demand primarily to the widespread recession affecting much of Western Europe and to slow economic activities in the United States.

But economists also credit what one called "a new consumer psychology in the use of energy and oil in particular." With prices climbing, he said, people are being "careful and calculating," driving smaller cars for fewer miles and keeping the use of lights and heat to a minimum.

The calm mood on the spot market has also been helped by cooperation among the major oil companies, which are all Western, and Western governments, which are members of the International Energy Agency, official say.

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OIL & GAS

DWINDLING DEMAND STEADIES OIL

Prices appear to be easing as plentiful supplies calm anxieties about the future

For months the world's oil pundits have warned that Western countries were in for a third major oil price shock in early 1981 as stocks that had built up before the Iran-Iraq war dwindled. But in recent weeks there has been a turnaround in these forecasts. Thanks largely to an unforeseen tumble in demand, it now looks as if oil markets will remain calm at least through the first half of 1981 and quite likely beyond.

This upbeat outlook assumes no further interruptions in supply from the Middle East and the continued cooperation of Saudi Arabia. The Saudis are now producing an estimated 10 million bbl. per day of crude oil, nearly 1.5 million bbl. more than what they consider the optimal 8.5 million bbl. If the Saudis were to cut back to that level, oil markets would tighten quickly.

Nevertheless, the loss of 3 million to 4 million bbl. per day of production in Iran and Iraq has been largely absorbed, in the view of an increasing number of analysts. Furthermore, by advancing the timetable for price increases in the U.S., President Reagan's decision to decontrol U.S. crude prices immediately should help discourage demand as a deepening recession in Europe cuts ever more sharply into oil use there.

"The impact of the [Iran-Iraq] war on the world oil markets has been relatively limited up to now," says an increasingly optimistic John Lichtblau, executive director of the Petroleum Industry Research Foundation. "Four months after its start, there is still no discernible shortage of any product in any major market. Nor are there any indications of an impending shortage in the very near future anywhere in the world."

ESTIMATING DEMAND. While many factors have contributed to this turnaround—particularly the resumption of limited crude exports from Iran and Iraq—plummeting demand has taken everyone by surprise. "Many of the finest analysts in the nation simply missed the mark on how much of a reduction in demand we would get from conservation, be it through higher prices or reduced economic activity," says Edward H. Murphy, director of statistics at the American Petroleum Institute.

Examples abound of recent downward revisions in demand estimates for 1980. Exxon Corp. has lowered its number for non-Communist world oil consumption last year from 51.5 million bbl. per day to 50 5 million bbl. per day, compared with 51.8 million bbl. per day in 1979. One prominent London oil analyst lowered his estimate of 1980 third-quarter demand as recently as January to 46.5 million bbl. per day.

A downward shift in 1981 projections has followed from these 1980 revisions. On the low side, Shell Oil Co. now believes free-world demand will fall another 1% to 2% in 1981, to between 49.1 million and 48.6 million bbl. per day. Lichtblau is positing a slightly larger 49.3 million bbl. per day of demand, although he acknowledges that this is more likely to be high than low.

One factor that clearly has not played a role is weather, because in most major oil-consuming regions winter has been colder than normal. Data compiled by *Oilgram News*, a McGraw-Hill publication, indicates that, on the basis of weather alone, heating oil demand from October to December should have been about 7% higher in the U.S. than in 1979, 11.5% higher in Europe, and 18.5% higher in Japan.

In fact, although demand for heating oil has edged up slightly in the U.S. in recent weeks, for 1980 as a whole it ran 11% below 1979 levels. And in Europe,

heating oil is the product in greatest oversupply, say market watchers.

THE FALLOFF. Explanations vary widely for why oil demand generally has fallen so much more precipitously than expected. Brice A. Sachs, executive vice-president of Exxon International Co., recently cited as reasons: "weaker-than-expected economic conditions, particularly in the U.S. and Europe, more conservation and efficiency in use than analysts had foreseen, and greater and more effective use of nonoil energies, particularly natural gas, coal, and nuclear in place of oil."

API's Murphy says U.S. gasoline demand fell 6.6% last year because of conservation. He attributes 90% of this to consumer resistance to higher prices and only 10% to the U.S. economic slowdown. If so, the 10% increase in U.S. gasoline prices expected to result from decontrol should quell demand more.

Whatever the reason for falling demand, oil-consuming countries have much larger stocks than most dreamed possible, given low levels of OPEC production and the fact that stockbuilding has all but ceased (chart). Lichtblau, API, and other analysts now put the size of this cushion, defined as the volume of stocks above historic norms, at 400 million bbl. Before the Iran-Iraq war the high point was 600 million bbl.

In addition, estimates of the rate at which stocks were declining have dropped from 2 million bbl. per day to less than 1 million in most cases, and zero in some, depending on assumptions about probable output from Iran and Iraq this year.

THE DRAWDOWNS. "Our impression is that if there is a stock drawdown going on, it's not one of any great importance," says a London buyer for one large U.S. refiner. Noting downward movement in certain spot prices in London, Rotterdam, and New York and the difficulties some crude-oil sellers are having in finding buyers at

all, this source adds, "It certainly is hard to equate this kind of experience with the drawdowns people are talking about."

Lichtblau recently explained to a congressional committee in Washington that spot prices for sweet (low-sulfur) crudes are now no higher than contract prices, while sour crudes are bringing only a 10% premium above contract prices. "This means that in the consensus view of countries that regularly or sporadically trade in the spot market—including most of the world's oil companies—there is now no need to bid up spot prices to obtain additional supplies," he says.

With the spot market moribund, attention is shifting to contract sales, which make up the bulk of the oil market. The big unanswered question is whether refiners will continue to pay more to keep future supply lines open despite ample stocks. There have already been reports of sliding contract premiums on light African crudes, a slight crack in the OPEC price front, but most market watchers think it is still too early to predict the outcome of this encounter with the producing countries.

"Prices might stay at present levels," says Tor Meloe, chief economist for Texaco Inc. "But there's substantial downward pressure on them even now." By the second or third quarter, Meloe feels contract prices may be slipping.

The following excerpt from the February 9, 1981, Business Week also appeared on page 712 of the Joint Appendix, although it does not appear to be relevant:

WANING HOPES FOR ATLANTIC COAST FINDS

After setting records for oil and gas drilling in 1980, exploration by U.S. companies stands to surge again following the Reagan Administration's Jan. 28 decision to decontrol domestic oil prices immediately. But even the added $9.4 billion in pretax revenues that decontrol will provide may prove little incentive for Atlantic Coast offshore fields that only five years ago were thought to hold potential for major new finds.

"It's been kind of a gloomy picture so far," says George F. Berry, manager of offshort exploration for Conoco Inc., which spent $58 million for rights to portions of 15 tracts in the Baltimore Canyon region off New Jersey, and $4.8 million on actual drilling, without finding a trace of oil or gas. Indeed, since 1976, when the federal government first began issuing leases off the East Coast, nearly 200 have been given out, but only 29 exploratory wells have been drilled. And those produced about five gas finds that fell far short of amounts needed to begin commercial production.

For oil companies that have spent more than $2 billion in this primary East Coast regions, the discouraging signs were enough for all but two to pull up their rigs. In early January, the Interior Dept. acknowledged that eight leases in the Baltimore Canyon had been relinquished in late 1980 by companies seeking tax write-offs and no longer willing to pay the $17,000 annual rental. Only * * *

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